

OFFICIAL TRANSCRIPT
PROCEEDINGS BEFORE

FEDERAL TRADE COMMISSION

DKT/CASE NO.: P951201

TITLE: HEARINGS ON GLOBAL AND INNOVATION-BASED
COMPETITION

PLACE: Washington, D.C.

DATE: October 26, 1995

PAGES: 1079 through 1303

Meeting Before the Commission

C O R R E C T E D C O P Y

HERITAGE REPORTING CORPORATION

Official Reporters
1220 L Street, NW, Suite 600
Washington, D.C.
(202) 628-4888

Date: October 26, 1995
Docket No.: P951201

I N D E X

Presentation by:	Page:
Professor Diran Apelian Sloan Foundation Aluminum Casting Study	1083
Professor Ernest Gellhorn George Mason University	1164
Bennett Katz VISA	1117
Samuel R. Miller, Esquire Folger & Levin	1151
Professor Thomas M. Jorde University of California, Berkeley	1192
Professor Roger Noll Stanford University	1220
Professor Janusz Ordoover New York University	1208
Robert A. Skitol, Esquire Drinker, Biddle & Reach	1239

PARTICIPANTS:

FEDERAL TRADE COMMISSION:

ROSCOE R. STAREK, III
Commissioner

CHRISTINE A. VARNEY
Commissioner

JANET D. STEIGER
Commissioner

SUSAN B. DE SANTI
Director, Policy Planning

DEBRA A. VALENTINE
Deputy Director, Policy Planning

WILLARD K. TOM
Director for Policy & Evaluation
Bureau of Competition

JONATHAN B. BAKER
Director, Bureau of Economics

SPEAKERS:

PROFESSOR DIRAN APELIAN
Sloan Foundation Aluminum Casting Study

PROFESSOR ERNEST GELLHORN
George Mason University

BENNETT KATZ, VISA

SAMUEL R. MILLER, ESQUIRE
Folger & Levin

PROFESSOR THOMAS M. JORDE
University Of California, Berkeley

PROFESSOR ROGER NOLL
Stanford University

PROFESSOR JANUSZ ORDOVER
New York University

ROBERT A. SKITOL, ESQUIRE
Drinker, Biddle & Reach

Heritage Reporting Corporation
(202) 628-4888

1 P R O C E E D I N G S

2 COMMISSIONER STAREK: Good morning. I
3 appreciate all you coming today. My name is Roscoe
4 Starek, and I'm one of the five commissioners of the FTC,
5 and I'm joined this morning by my colleague Commissioner
6 Varney.

7 Unfortunately, Chairman Pitofsky has a speaking
8 engagement this morning, a long-standing commitment, so I
9 don't think he will be able to join us -- maybe later.
10 Probably all day -- anyway, this morning we are going to
11 look at such issues as how can businesses capture
12 innovation or other efficiencies through collaboration in
13 markets that are undergoing change, and try to answer
14 some questions about whether or not antitrust impedes
15 firms or industry efforts to collaborate to achieve
16 innovation-bound efficiencies.

17 Our first witness this morning is Mr. Diran
18 Apelian, who is Provost and Howmet professor of
19 engineering at Worcester Polytechnic Institute, and
20 before assuming that position in 1990, he has held
21 various positions at Drexel University, including
22 professor, head of the Department of Materials
23 Engineering, Associate Dean of the College of
24 Engineering, and Vice Provost.

25 Between 1972 and 1975, he worked in Bethlehem

1 Steel's Homer Research Laboratory.

2 Professor Apelian is accredited with pioneering
3 work in various areas of the solidification processing
4 and including among other things, molten metal processing
5 and filtration of metals, and aluminum foundry
6 engineering.

7 He has over 200 publications to his credit. He
8 currently serves on several technical advisory boards and
9 corporate boards, and he has served on and chaired
10 several national materials and advisory boards for the
11 National Research Council.

12 Professor.

13 PROFESSOR APELIAN: (Showing slides) Good
14 morning. I thank you for that introduction, and thank
15 you for the opportunity to come here and spend some time
16 with you, and hopefully I can contribute to these
17 deliberations throughout these hearings.

18 My name is Diran Apelian, as has already been
19 stated, and I am at WPI where I serve the institute as
20 the institute's provost.

21 However, I will only be in that position for
22 another year -- a period of six years -- and thereafter,
23 I will be heading the Center for Metals Processing which
24 I have overseen its foundations at WPI, and its
25 establishment.

1 As already mentioned in the introduction, for
2 many years, I have had a close alliance with the
3 industrial sector, and prior to joining the academe, I
4 spent several years at advanced product development at
5 Bethlehem Steel Corporation in Bethlehem, Pennsylvania.

6 My scholarship and area of research, research
7 work is in materials processing, and specifically metals
8 processing.

9 The Center for Metals Processing at WPI has
10 three distinct laboratories, each of which serves a
11 certain sector of the metal processing industry.

12 These three laboratories are the aluminum
13 casting lab -- ACRL -- the powder metallurgy laboratory,
14 and the semi-solid processing laboratory.

15 I will revisit these laboratories of the center
16 a bit later on to illustrate and discuss with you how
17 manufacturing -- and I will spell out here that it's
18 fragmented manufacturing industries -- can and have
19 captured innovation as well as other efficiencies in
20 markets which are undergoing dramatic and significant
21 changes.

22 My hope is that this presentation will
23 demonstrate some innovative and creative approaches in an
24 effort to enhance U.S. competitiveness.

25 The metal casting industry is a \$29 billion

1 industry. The powder metallurgy industry is a two to
2 three billion dollar industry, and the semi-solid
3 processing is a brand new technology, so the markets for
4 which are not developed yet, so you can see that there is
5 a, three different very different sizes, scales, and
6 technologies.

7 I would like to conclude with some specific
8 recommendations and look forward to some discussion later
9 on.

10 In this presentation, what I would like to do
11 is briefly look at these four areas as an outline.

12 I was initially going to read this paper
13 verbatim, but I have decided in the last five, six
14 minutes it doesn't really make much sense.

15 I've never really felt comfortable reading it.
16 I've never read a speech, so some of it, I'm going to
17 wing it, so if you're trying to read this, you're not
18 going to know where I am, but that's exactly what I'm
19 trying to do so you can pay attention to what I'm saying.

20 So societal sea changes is an important, in my
21 mind, an important thing for us to review because so much
22 has happened that has implications and opportunities as
23 to how businesses do, manufacturing industries do
24 business with the universities.

25 There is some overarching issue for fragmented

1 manufacturing industries, which I would like to touch on,
2 a little bit more on the Center for Metal Processing, the
3 details as to how industry and universities work
4 together.

5 There may be some concerns out there as to how
6 the research that is being done is not first class,
7 whether this is still applied, and that we're losing the
8 edge on fundamental research.

9 I would like to touch upon that; some of the
10 operational principles, and lastly, conclusions and
11 recommendations.

12 So let me start with the first one on societal
13 sea changes.

14 As you can see in my write-up there, a lot of
15 changes are going on, that one thing that we're seeing
16 and we're experiencing is that the changes in society are
17 all happening at the same time, whether they be
18 political, economics, societal forces, so things are not
19 occurring in series, so the impact is quite dramatic.

20 I've used a nautical metaphor in this
21 presentation that -- and called it the sea changes, so
22 the focus of the sea change I will be addressing here is
23 more of a transition from defense oriented to commercial
24 sector to the civil research, civil commercial sector.

25 If you look at the last 40 years, we have been

1 at times criticized that we haven't had a strategy,
2 business strategy, as a nation, and I would submit to you
3 that we have had it.

4 It has been the military-industrial complex. We
5 have had a three-legged, three-legged structure wherein
6 the Pentagon, whether it's through ARPA or DARPA, now
7 ARPA, ONR, Navy, Air Force, AFSR, Army, Army Research
8 Office and a variety of other agencies have funded much
9 of the research at the universities to carry out
10 fundamental research with 6.1, 6.2, or 6.3, the results
11 of which went to establish the foundation for
12 technologies for products, for the defense industry, the
13 industry, the manufacturing industries where making these
14 components, not for the civilian sector, but rather for
15 the Pentagon, so it was a three-legged structure with the
16 Pentagon, universities, and the manufacturing industries.

17 And there is a strata of manufacturing
18 industries. You would have the motherships if you will
19 such as the McDonnell Douglasses or the Lockheeds or the
20 Boeings under which there would be a variety of smaller
21 corporations and companies, whether they be \$20 million
22 companies or \$50 million companies, but nevertheless,
23 service manufacturing industries, so there is a very long
24 chain under these motherships.

25 Today that has changed because the defense

1 industry is doing lengthy research. The research monies
2 are not coming to the universities nor are they going to
3 these corporations.

4 To cite one example, Rockwell International,
5 once a paragon of defense-oriented industries, now
6 derives only 18 percent of its revenues from military
7 contracts. That's a major, major change in a period of
8 only five years.

9 Throughout this paragon change, the by-product
10 of the universities was the graduate students, and I hate
11 to call it a by-product, but in a way, it was. It is. It
12 has been. So the graduate students upon graduation was
13 either recruited by industry to continue the research
14 industrial labs, or recruited at the universities to
15 clone other graduate students like themselves later on.

16 As I have already indicated, that has changed
17 in that the funds are not there anymore, and if you look
18 at some of our research universities, it's obviously
19 clear to you that over the years, when Vanover Bush of
20 MIT, when he really was one of the architects of the
21 foundations of the National Science Foundation, the
22 notion was that the faculties of our universities were a
23 tremendous asset and resource for the country to help the
24 Pentagon to help our defense industries, so research
25 universities were established over the years.

1 When I say established, they really became
2 major research universities. Examples would be Stanford,
3 would be Cal Tech, would be MIT, Berkeley, and I would
4 characterize these research universities as battleships.
5 That's why the nautical metaphor of sea changes.

6 The defined skirmish lines are no longer there,
7 and thus these major universities find it difficult to
8 reposition themselves.

9 As provost, I can tell you it is very hard to
10 make budgets work when you're relying on 30 to 40 percent
11 of all, all of your faculty's salaries to come from
12 self-money, so these research universities cannot steer
13 quickly enough to maneuver to sea change and the change
14 in the tide, and I would certainly suggest that that's
15 the last thing we need to emulate in our nation.

16 Peter Drucker, a very well-known professor of
17 management and a prolific writer, has submitted that our
18 productivity as a nation and our competitiveness will
19 only improve if, if the productivity of the knowledge
20 workers is enhanced.

21 That's interesting that he coins those words
22 knowledge worker, so he's putting emphasis on the labor,
23 the people who are working, but he has an adjective there
24 -- knowledge, knowledge worker.

25 The more informed they are, the more educated

1 they are, and I would also submit to you that there is a
2 big difference between data, information, and knowledge.

3 I personally believe in Drucker's notion, and
4 similarly I believe that productivity of our
5 universities, though this is not one of your concerns
6 here, will only increase if the learning experience by
7 our students is enhanced.

8 Let's compare for a second the perspectives of
9 the university and an industry.

10 Universities in general have a unique situation
11 in that their customer and their product is exactly the
12 same. It's the individual, the student, except that
13 there is added value on graduation. At least we hope
14 there is added value on graduation.

15 On the other hand, the industrial perspective
16 is one where wealth ought to be created, should be
17 created, and we're trying to add value to the
18 shareholders or the principals of the company. That's if
19 it's a private company.

20 Technology plays a major role in the creation
21 of wealth, and thus the knowledge base is the foundation
22 to competitive advantage.

23 I don't think one could argue with that.
24 However, we all know that the knowledge base is not
25 something you pick up off the shelf in a CD ROM or a

1 certain number of books, but that the knowledge base is
2 invested in the knowledge worker, so both industries and
3 universities have a very key common thread, and that is
4 the graduating student or the product of our universities
5 as well as the human resource base in our, in our
6 industries, manufacturing industries.

7 So it is important for us to acknowledge that
8 it is the human resource base of our nation's industries
9 which is the crucial factor in enhancing our nation's
10 competitiveness, and you might hear this re-emphasized in
11 the next ten minutes in my presentation or so, that it is
12 really a crucial point that it is the knowledge worker,
13 it's the people who are really going to make the
14 difference.

15 It might be interesting for me to point out in
16 the metals processing industry how the defense-oriented
17 research has fueled developments within metal processing
18 manufacturing industries.

19 I'll give you some examples. Rapid
20 solidification technologies where you can take a liquid
21 metal and cool it down at a million decrees a second, 10
22 to the sixth, 10 to the seventh degrees per second.

23 Very rapid solidification technologies
24 initially came out of Cal Tech -- Paul Duwade's
25 initiative funded by ARPA during the late '70s early

1 '80s; solidification modeling funded by at that time I
2 think DARPA and the Air Force during the late '80s and
3 early '90s; metal matrix composite work funded by all of
4 the agencies, ARPA having the major lead.

5 These technologies have truly emanated from
6 defense-oriented initiatives for very specific
7 applications for defense purposes, and they are quite
8 numerous and have certainly impacted the commercial
9 sector, but there has been a lag.

10 I would like to point out that many of these
11 technologies that have come from the Pentagon were not
12 developed based on the needs of the marketplace and were
13 not driven by the manufacturing industries, either, but
14 rather they were hoisted upon them for a defense-oriented
15 perspective rather than the civilian one.

16 The new paradigm in closing here and moving on
17 to the next section, is that we need to have a focus on
18 the needs of the civilian sector, focus on new product
19 development, the focus on market share or market
20 penetration, all of which translate to successful
21 commercialization creating wealth, creating value,
22 increasing competitiveness and productivity.

23 Now let me move on to some overarching issues
24 in the second point, in manufacturing industries, and to
25 start off, our competitiveness is influenced very much by

1 the viability of small companies, small businesses, and I
2 would like to talk about the fragmented industries in
3 our, fragmented manufacturing industries in our country
4 because there is a whole bunch of them. It's not just
5 the automotive, the big steel, ship building, the big
6 aerospace, but a host of fragmented manufacturing
7 industries.

8 Now what is a fragmented manufacturing
9 industry?

10 This is one in which the market leaders do not
11 have the power -- you may want to call them mom and pop
12 type operations, but nevertheless do not have the power
13 to shape the events of the industry.

14 These industries usually contain many small or
15 medium-sized firms and are often characterized by low
16 profitability.

17 They don't have much money for R&D
18 expenditures, and the useful criterion for fragmentation
19 is that 40 percent of its sales generated reside or are
20 generated by four, the four largest producers.

21 Some examples of these kinds of industries can
22 be seen here -- non-ferrous rolling and drawing. The
23 numbers in the parentheses are the percentages, the
24 percentage of sales concentrated among the top four
25 producers.

1 For example, in plastic materials and resins,
2 22 percent of the sales generated in that industry
3 reside, are generated by four companies alone, whereas in
4 non-ferrous, it's a fairly high number -- 38 percent; in
5 powder metallurgy, 33 percent; so in this context, let me
6 try to point out to you what are some of the components
7 that are made by these industries so it's not abstract to
8 you.

9 If you ever have the occasion to go out
10 underneath your car, take a look at the big transmission
11 box that you have.

12 There is a casing in which the transmission
13 resides. That transmission casing is made completely by
14 die casting.

15 Large parts are made through die casting, jet
16 jet engine blades and vanes through investment casting,
17 whether it's Precision Cast Parts or Homid Corporation,
18 now Thiokol.

19 Aerospace doors and structural components,
20 these are made by Fuhrman and Sand Castle, by Hitchcock
21 Industries in Minneapolis.

22 Many automotive components such as steering
23 column parts and the multitude of gears that go into the
24 transmission of our car are made through powder
25 metallurgy.

1 These are the kinds of industries that service
2 the large manufacturing industries, and they make a
3 significant portion of our manufacturing infrastructure
4 in our country.

5 It is our firm belief that investments must be
6 made to strengthen the knowledge base and to enhance the
7 level of the knowledge worker so that these
8 near-net-shape manufacturing industries can demand a
9 world class position.

10 I'm not going to go, I'm not going to go in too
11 much detail in the next section except to point out that
12 there is a lot of pessimism out there that the industries
13 are becoming more efficient and that they are becoming,
14 they are creating value at the expense of the workers.

15 A little bit, over a hundred years ago, Karl
16 Marx and Frederick Engels in their Communist Manifesto,
17 and I quote from them -- they said the modern laborer,
18 instead of rising with the progress of industry, sinks
19 deeper and deeper below the conditions of existence of
20 his own class. He becomes a pauper, and pauperism
21 develops more rapidly than population of wealth.

22 Obviously it is a very pessimistic view of
23 increased productivity, and there is some liberals and
24 conservatives alike today like Jeremy Rifkin, author of
25 "The End of Work," who are suggesting that these kinds of

1 productivity increases occur at the expense of the
2 workers.

3 Our experience is totally different in the
4 Center for Metals Processing at WPI. It's much more
5 optimistic.

6 We're finding that through re-infrastructure,
7 through re-engineering, all of these terrible names, and
8 some downsizing, what's occurring is that the
9 corporations are enabling themselves to redesign
10 themselves, to reinvent themselves, where value is being
11 created, and we're not so concerned about the wage of the
12 worker. It's the value of the worker.

13 We subscribe to the notion that fatter
14 paychecks follow higher productivity. I think that caps
15 it all in that one sentence.

16 In the early decades of the 20th Century, when
17 mass production ruled, competitive advantage was realized
18 by fragmenting work, by specializing tasks and using a
19 hierarchical management theory.

20 We're finding out today that productivity gains
21 are made by increasingly relying on empowerment of the
22 work force.

23 These are cliches perhaps, but to truly do it,
24 it's a transformation in the manufacturing work force in
25 the workplace -- delegating authority using information

1 and communication technologies.

2 Chaparral Steel in Midlothian Texas, Gordon
3 Ford, who is the CEO, recently told me only two weeks ago
4 that when he is trying to buy a continuous casting
5 machine, which is a several million dollars investment,
6 he doesn't make that decision, nor does the R&D
7 department make that decision.

8 He sends the workers around the world to look
9 at all the various suppliers, and they make a decision as
10 a committee as to which machine they ought to buy, and
11 empowerment really means that you delegate the work.

12 There is no doubt in our minds that education
13 and life-long learning is the key to ensuring the
14 world-class manufacturing, and it is principally for this
15 reason that industry/university collaboration ought to be
16 nurtured.

17 Now let me move on to the Center for Metals
18 Processing and tell you a little bit about the details of
19 how this consortium works.

20 As I said earlier, there are two laboratories -
21 - three laboratories, each of which addresses a certain
22 sector of the industry.

23 I'm not going to have the time to go through
24 all three laboratories.

25 I would like to spend a few minutes about the,

1 about the aluminum casting and the powder metallurgy.

2 We're talking here about over 40 corporations,
3 40 manufacturing industries supporting the center with an
4 annual consortium fee.

5 Fundamental and applied research is carried out
6 by the center addressing technological needs,
7 technological barriers identified by the industrial
8 sector, so let me first talk about the casting
9 laboratory.

10 I assume everybody knows what near-net-shape
11 manufacturing is.

12 That's where you take liquid metal and you pour
13 it into a cavity, different kinds of cavities, whether
14 it's die permanent mold sand casting, and you make a
15 net-shaped component perhaps. With some minor machining,
16 or very little machining, you have a fairly complex
17 component that's, that is used by society, so the
18 objectives of this consortium, of the center are really
19 two-folds -- to perform basic and I mean fundamental
20 research relevant to the aluminum casting industry.

21 There is a difference between, there is a
22 different way of viewing what applied research means and
23 what fundamental research means.

24 My own view is that fundamental research within
25 a given context can be viewed as and should be viewed as

1 applied research.

2 It's not black and white, but rather there's a
3 continuum there. It's how you view it.

4 The second objective is to provide a network, a
5 structure, where dialogue takes place within the various
6 sectors of the industry.

7 The aluminum casting is a growth industry. As
8 I indicated earlier, the metal casting industry is about
9 28 to 29 billion dollars a year business of which about 9
10 billion or so is for aluminum castings, the remaining
11 being for iron and steel.

12 The aluminum casting research laboratory of
13 ours addresses the technological needs of the industry
14 and does so by integrating faculty from different
15 disciplines, brings different people together.

16 It also serves as an educational center,
17 disseminating results, developing courses in continuing
18 education programs, serving the industry, tutorials, et
19 cetera.

20 Now who are the members of this, of this
21 center?

22 I think you can read the names of the companies
23 yourselves, but one thing you will note is that these --
24 that we have here a broad spectrum of the industry.

25 It spans a very broad spectrum in that we have

1 primary and secondary producers of aluminum, so the
2 people who are listed under the primary, they make
3 aluminum ingots, billets.

4 Second producers are recyclers like Wabash
5 Alloys in Indiana where a million ton a day is not enough
6 of -- is the scale of recycling we're talking about.

7 Then you have people like Comalco,
8 Doehler-Jarvis who buy aluminum from either the
9 secondaries or the primaries, melt it, pour it in their
10 dies, in their cavities, in their molds, and make all
11 kinds of components.

12 Then you have end users. These are the people
13 who buy the castings, and we have Ford, General Motors,
14 Harley Davidson.

15 The members pay an annual fee of only 15,000 a
16 year. It's probably going to go to 20,000 very shortly.
17 It has been like that for the last four years.

18 We have a Steering Committee, which is
19 established consisting of six elected members of the
20 consortium.

21 The membership on the Steering Committee is on
22 a rotational basis so that we can have representation
23 from every member company.

24 This committee meets at least twice a year.
25 Specific projects are, are decided on, and each specific

1 project has a focus group made up of consortium members.

2 This might help. We have a Steering Committee,
3 leaders of the industry, six of them.

4 There is the director of the laboratory. Then
5 you have the research staff, the graduate students, the
6 post-docs, the undergraduate students, and four projects
7 a year, but some of these projects have been going on for
8 three, four years, so they are not necessarily yearly
9 projects. They can go on for several years if they are
10 fundamental research topics.

11 Each of those projects in turn, though they are
12 not shown there, has a focus group of several industry
13 members participating with the student, with the
14 supervising professor, giving lots of counsel, lots of
15 advice and truly bridging the gap if you will if there is
16 such a gap between industry and university.

17 It's, it's a high maintenance way of doing
18 research. You know, you've heard of high maintenance
19 body. This is a high maintenance organization to the
20 research, but the output, the outcome of it is just
21 dramatically different than what I have been accustomed
22 to 20 years ago.

23 The beneficiary of this is the student, who is
24 much more knowledgeable, has been grilled by the
25 industrial sector if you will, and I think the industrial

1 sector as well, who is, who has available to them the
2 graduating engineer, graduating technologist who has been
3 well educated in a contextual sense.

4 I'm not going to go into any detail the
5 research projects, but just to have a listing for you, to
6 see what their projects are in the casting laboratory,
7 prediction of feeding characteristics, that's a three,
8 four-year project. Very, very detailed modeling work is
9 going on that's real.

10 The next one is a fundamental project on how
11 can we relate processing parameters to the resultant
12 microstructure?

13 The last one there, the heat treatment of
14 aluminum magnesium -- at first when I thought about it, I
15 said to myself many years ago it's going to be too
16 applied, not enough fundamentals here.

17 It has turned out just to be the opposite. The
18 schedules presently used by the industry are archaic and
19 medieval.

20 I'm being perhaps too dramatic here, but some
21 of these schedules for heat treatment have been
22 established 40, 50 years ago by the industry, military
23 specs.

24 Since that time, a lot of technology has
25 occurred, and microstructures are different. We have

1 changed the solutionizing, the heat treating cycle from
2 ten hours to two hours for the industry -- much more
3 energy efficient, much better results, and a lot of
4 savings. I mean a lot of savings.

5 In addition, we have several projects by the
6 Department of Energy, recent one of the size of \$2.8
7 million to look at how can we make metals cleaner so that
8 they are -- so defects are removed before you even make
9 the castings, another one within the die casting
10 industry, about half a million over two years, so you can
11 see that in addition to the monies coming from the
12 industry, we are able to leverage ourselves because many
13 of these government, federal agency projects require cost
14 sharing.

15 Overnight we're able to do that because of the
16 industrial base and infrastructure we have within our
17 reach.

18 That has been a major benefit for us to be able
19 to position ourselves.

20 To summarize and move on here -- you know, I
21 should have asked how much time I have here.

22 How am I doing?

23 MS. DE SANTI: How about about five more
24 minutes?

25 PROFESSOR APELIAN: Okay. I'll try to do it in

1 four. You can hold me to that.

2 So the summary of ACR activities you can see
3 there -- research programs, annual workshops, technical
4 seminars, ACLR newsletters, technical education programs,
5 industrial interns -- so you can see why I said earlier
6 this is a high maintenance technology.

7 The powder metallurgy laboratory, the next
8 laboratory, is based on the same model, so I'm not going
9 to go through the template that I just talked about as to
10 how the aluminum casting research laboratory works. It's
11 the same model.

12 The members of the companies, member companies
13 of the center are a different list of companies except
14 that Ford Motor Company and General Motors shows up
15 again, and by the way, those companies, the GMs and the
16 Fords, they pay membership fees for the P/M laboratory.
17 They pay membership fees for the aluminum casting
18 laboratory, and they are also going to be paying
19 membership fees to the semi-solid processing, which is a
20 brand new technology they have come up.

21 It's also clear to you here that some of these
22 are transnational corporations. They are not necessarily
23 regional corporations.

24 I think I said earlier that this industry is a
25 smaller industry, about a two plus billion dollar

1 industry, so it's not in the same scale as the aluminum
2 casting, but you can see that it's comprised of a lot of
3 industries.

4 As you probably know, the Sloan Foundation is
5 very interested in the competitiveness of the U.S.
6 industries, and they are funding several industry
7 studies.

8 I saw in the agenda that you've heard from my
9 friend Professor Cooney yesterday on the pharmaceutical
10 industry.

11 Stanford is looking at the software industry.
12 Berkeley is looking at the semiconductor industry,
13 Carnegie-Mellon the steel industry, et cetera, et cetera,
14 and we're looking at fragmented manufacturing industries,
15 particularly interfirm relationships, cost estimation,
16 interfirm relationships meaning the supply chain
17 relationships, horizontal as well as vertical, and we're
18 finding out a whole bunch of very interesting happenings
19 within the firms as to how they view competition, how
20 they talk to each other, and how they can think of
21 themselves.

22 Cost estimation is another one. We're appalled
23 as to how prices are set. It's not based on real cost or
24 any activity cost basing, but rather what the other
25 person is selling it for, so my colleague Professor Chick

1 Kasouf is going to give some more details on our results
2 of these works, the interfirm relationships, cost
3 estimation, value creation and globalization, on November
4 the 8th, and if I can do it, I would like to accompany
5 him, but the schedule may not permit me.

6 Some principles for university-industry
7 alliances in closing here, and some conclusions -- when
8 you look at the powder metallurgy lab and the casting
9 lab, you might ask the questions aren't they competing
10 technologies within your own center?

11 Isn't casting, which is a near-net-shape
12 manufacturing technology, competing with powder
13 metallurgy technology?

14 How can you keep all these industries together
15 when they are competing with each other?

16 The answer to that I like to give you is one
17 that will hopefully illustrate our philosophical bent and
18 our belief in the center is that if you're in the
19 near-net-shape manufacturing business, you better not
20 only know what is happening within your own industry, but
21 other industries that also make near-net-shape
22 manufacturing components, and our view of competition is
23 a bit different.

24 Competition we view as a partner with whom we
25 have not made an alliance. That's a bit different than

1 how people view competition at times.

2 Collaboration occurs for the development of
3 generic knowledge base, and we do so by creating a black
4 box.

5 We laugh about this at times, but we have a
6 parameter or window within which everything is safe. It's
7 fundamental, generic.

8 The companies who are the beneficiaries of that
9 research use it in their own ways, any way they want to
10 for any market they wish to.

11 Things outside of the black box are not safe.
12 They are overly-proprietary, and we just don't even get
13 involved in those areas.

14 Using an industrial lexicon, in closing here,
15 we need to fortify and strengthen the customer/supplier
16 relationships.

17 We see ourselves as supplying the knowledge
18 base and qualified personnel, and moreover, we believe
19 that the knowledge base should be developed
20 collaboratively.

21 We're cognizant of these paradigm changes and
22 are establishing bridges between the industrial and
23 academic sector through the workings of the center.

24 It's important to realize that early on, one
25 needs to establish a delicate balance between competition

1 and teamwork for the participants of a horizontal
2 research collaborative.

3 I have talked about the box, the black box, and
4 I can tell you it works very well.

5 We're -- one of the concerns we have is this
6 leaky technology where through collaborations, industry
7 is putting money into collaboration, but the technology
8 gets leaked out to other companies, overseas or
9 nationally, who have not invested in that, so what we
10 have done to alleviate that is that our member companies,
11 the companies who, the 40 plus companies, that the
12 consortium, they get the research results first, so
13 publications and things that go out to the public through
14 our research and publications professional journals,
15 meetings, et cetera, there is a lag time, so it's
16 important that we honor that and there is some, some
17 agreements to that.

18 Also intellectual property, the, the university
19 owns the intellectual property, but our member companies
20 get first right of refusal and royalty-free use of those
21 intellectual properties.

22 In closing, I would like to remind you that I'm
23 a professor of engineering, not an attorney or student of
24 antitrust issues.

25 I even had a hard time reading the article in

1 the New York Times Sunday about what is happening in
2 Justice and and FTC.

3 However, I firmly believe that policies and
4 regulations, and I hope that's what going to be the
5 outcome of these hearings, should not be, that
6 regulations and policy should not be a barrier for
7 developing generic knowledge base and contributing to the
8 education of the human resource base in our fragmented
9 manufacturing industries.

10 I would much prefer to have our energies as a
11 nation committed to making our manufacturing industries
12 more productive than to address a host of secondary
13 problems about how you're going to pay for this, for
14 that, for that.

15 I would rather us focus on how to generate
16 revenues. Taking care of the root cause problems will
17 ensure the long-term prosperity of our people.

18 In the real estate business, we hear often that
19 the secret is location, location, location. I'm sure you
20 have heard that before.

21 I submit to you that for us to enhance our
22 nation's productivity, we have got to invest, invest, and
23 invest to ensure that our work force is the very best,
24 the most knowledgeable work force in the world.

25 The university's business should be driven by

1 its academic mission, and the university-industry
2 collaborations attempting to elevate the level of our
3 knowledge workers certainly fit this mission.

4 I hope that these comments and the insight that
5 I have provided here will be helpful in your
6 deliberations, and if there is any time -- I don't know
7 how the program is -- if there are any questions, I would
8 be happy to entertain them.

9 Thank you.

10 COMMISSIONER STAREK: Thank you very much,
11 Professor. That was fascinating.

12 I'm unfamiliar with this kind of collaboration
13 that you have described at the center, and I find it
14 extremely interesting.

15 I do have a couple of questions if I might.

16 PROFESSOR APELIAN: Absolutely.

17 COMMISSIONER STAREK: First, is it, is it your
18 thesis that as a result of the, of the drying up of
19 resources that generally has been generated by the
20 Pentagon for universities and industries to do national
21 security-related research and development, that the
22 Center for Metal Processing and its relationships with
23 universities is the wave of the future for collaborative
24 joint ventures to make up for that loss?

25 PROFESSOR APELIAN: It is certainly my view,

1 and it is not shared by many, but it is also being shared
2 by many as well, so it's, it's, I would not even give
3 some percentage 50/50, but it is certainly shared by many
4 of us that as the defense -- as we as a nation are moving
5 more towards the civilian and commercial sector, that
6 there is some real models out there that we can learn
7 from Germany and other places as to how industry and
8 universities can work together for the benefit of
9 society.

10 We certainly are doing it. Actually it is very
11 -- the Director of Engineering at the National Science
12 Foundation in the Reagan Administration, Nam Suh, Nam
13 Suh, S-u-h from MIT, he had the very first such
14 collaborative consortium at MIT in the plastic industry,
15 and the engineering research centers, when they were
16 first established, were based on this model -- how can we
17 have specific focused areas of excellence in our nation
18 at various universities as long as the industry was going
19 to support this?

20 So many of these notions are not totally
21 original. You know, Einstein said I never discovered
22 anything, I just reinvent the same old things that had
23 been discovered by others before, but it's clearly, in my
24 view, it's clearly the paradigm for the future that
25 industries and universities have to work together to

1 develop the knowledge base for the commercial sector.

2 You know, industry itself is not ready to take
3 this on as well.

4 You know, they are so -- you know, you have, if
5 you have a small company of 15, 20 million dollars, and I
6 have served on a board of one such company, \$25 million
7 company, there are all kinds of daily issues of
8 inventory, cash flow, personnel issues.

9 R&D is not necessarily thought of as an
10 investment. It's thought of at times unfortunately as a
11 cost, so I think there is a real opportunity, and our
12 universities as viewed by the whole world as one of the
13 best assets of America.

14 If we can just take that and leverage it and
15 parlay it into the, into the industrial manufacturing
16 base and invest in our work force together, and if we
17 have some regulations and policy that even stimulates
18 that or even create some incentive for that, I think it's
19 going to be great.

20 Maybe it's too optimistic, but I really believe
21 that.

22 COMMISSIONER STAREK: We have looked at several
23 industries here, and a couple come to mind,
24 pharmaceuticals and consumer products basically, and it
25 seems to me that in the those two industries, the

1 companies take their research and development very, very
2 seriously because it's their future.

3 I mean obviously they need to continue to keep
4 developing new products, whether it be for consumer use
5 or in the pharmaceutical area.

6 It's my sense that they do most of their
7 research and development in-house out of, you know, what
8 must be their profits, and I wondered why in the metals
9 industry that you're familiar with this can't be done.

10 Is it because there so many companies that you
11 need to collaborate, or why is the industry so fragmented
12 and collaboration is required unlike in the other
13 industries?

14 PROFESSOR APELIAN: It's an interesting point,
15 and I think it will tie into some of the things I have
16 already talked about here and there, and let me try and
17 integrate that.

18 There is a very large difference between -- I'm
19 going to cite some companies as examples so it's not
20 abstract, to be specific, very large -- there is a very
21 significant and dramatic difference between a Merck,
22 Sharp and Dome under the leadership of a Ray Vagilis, who
23 was a professor at one time, who knows that the
24 pharmaceutical industries, the products that they have to
25 make has to be at the cutting edge, so it's a very

1 advanced technological R&D intensive business if you
2 will, and dominated by a few companies alone whereas in
3 the manufacturing base industries, whether it's screw
4 machines or rolled aluminum parts or castings or die
5 castings, it is not that intensive an R&D.

6 The, the large manufacturers, whether it is
7 General Motors or Ford or McDonnell Douglas, dictate to a
8 large extent to the customer what's needed, and it's the
9 business of these companies to make it, so the R&D that
10 is needed usually has been driven by the customer.

11 The General Electrics tell the Howmets or the
12 Precision Cast Parts, the General Motors tell the Candy
13 Die Castings what their needs are, so in a way, we have
14 crippled to some extent the service manufacturing
15 industries by having very, very large customers,
16 motherships if you will, of manufacturers -- I shouldn't
17 call them manufacturers -- assemblers, the General
18 Motors, they are manufacturers but they assemble a lot of
19 parts together -- by dictating what the needs are, so
20 many of these servicing manufacturing industries have for
21 many, many years not been given the opportunity to
22 control their own destiny, so there is a transition
23 there, and I hope -- I have tried to point out that there
24 is a large difference between the pharmaceutical industry
25 that Charlie talked about. I'm sure like Merck, Sharp

1 and Dome, they know their products have to be at the
2 cutting edge, very next things, and it's hard to do in
3 the die casting where you have got a metal die in which
4 liquid metals coming in stamping hundreds and hundreds of
5 parts every hour, but nevertheless these are industries
6 that provide a lot of jobs, many billions of sales, many,
7 many individuals make a living and raise families and
8 send their children to school.

9 There is a lot of chain under that, too --
10 people selling paper and pens and pencils to these
11 companies, so there is a very large chain, and I think we
12 need to pay attention to that.

13 MS. VALENTINE: Just one quick question -- we
14 have obviously heard before, and I think we'll hear
15 again, that private control of research results is
16 generally what yields greater incentives to innovate.

17 You have an interesting arrangement here where
18 you have the university owning the research results and
19 members getting royalty free use and then a time lag.

20 How is that arrived at and how happy are your
21 members with that?

22 PROFESSOR APELIAN: That was a major dispute or
23 deliberation at the very beginning when it was being
24 created.

25 As it has turned out in the last five and a

1 half years of this center, we have not applied for a
2 single patent. Okay.

3 Since the research is so generic, it's so basic
4 that the companies are taking, are taking the fundamental
5 research results and using it for their own use any way
6 they want to, and there is a, there is a time of a year
7 or so before we publish anything, so the corporations are
8 benefiting from that.

9 MS. VALENTINE: The time lag is a year?

10 PROFESSOR APELIAN: Yeah.

11 COMMISSIONER STAREK: Intellectual property
12 belongs to the university.

13 PROFESSOR APELIAN: It does, but as I was
14 saying, it's really a moot point because we really
15 haven't applied for any patents.

16 MS. VALENTINE: Thanks.

17 COMMISSIONER STAREK: Well, thank you very
18 much.

19 Our next witness is Bennett Katz, who is Group
20 Executive Vice President, General Counsel, and Secretary
21 of VISA International.

22 He is also Vice Chairman of VISA's Management
23 Executive Committee.

24 Mr. Katz has been in VISA since 1970, and has
25 been VISA's General Counsel and Secretary since 1973, and

1 prior to that, he served for five years as the Chief
2 Counsel of Avco Financial Services.

3 Mr. Katz, thank you for coming. We certainly
4 look forward to your remarks.

5 MR. KATZ: Well, thank you. We're helping the
6 universities -- I want you to know that -- by having a
7 VISA card in the hands of every student.

8 PROFESSOR APELIAN: That's true.

9 COMMISSIONER STAREK: You need a VISA card to
10 pay for the books these days!

11 MR. KATZ: Well, let me just say that that was
12 a very interesting speech, although I didn't know very
13 much about the metals industry before, but I think maybe
14 this topic comes closer to home with a lot of people
15 because as you look around this room, I would suggest
16 that seven out of ten people sitting in this room, maybe
17 more, have a VISA card, and so it's something that
18 affects every one of us in this society, so I think there
19 is a lot of interest.

20 Let me start off by saying that a document was
21 presented by me here, and I have to admit that it was
22 written by Steve Bomse here. I brought my clocker here,
23 and I don't intend to go over that document whatsoever.

24 I support that document. Actually I read it,
25 so that's why it's submitted, but I'm here to talk more

1 about legal and business issues with respect to VISA and
2 hope that would be of some interest to you.

3 Obviously, you know about VISA. It's probably
4 the largest joint venture in the world. It will do this
5 year probably in the range of three quarters of a
6 trillion dollars of business, and I would suggest I hope
7 because my bonus is somewhat dependent on it, that we
8 will go over a trillion dollars in the next two years.

9 It is worldwide in scope. It covers probably
10 160 countries. It involves banks throughout the world.
11 It involves consumers throughout the world, and we hope
12 that it has brought innovation to this country and in
13 fact to the world economy, so let me go back to this
14 issue of what we are.

15 We're a joint venture, no question about it.
16 We're owned by the member banks who issue the cards, and
17 they are located -- we have a joint venture in the U.S.
18 composed of U.S. banks.

19 That joint venture in part owns VISA
20 International, which is a worldwide joint venture, and
21 the U.S. joint venture owns approximately I would say
22 today in the neighborhood of 45 percent of the worldwide
23 ventures, but I don't want to be quoted on that, but it
24 is a substantial part of the worldwide joint venture.

25 In 1970 when I had the privilege of joining

1 VISA, and you talk about luck, not skill, I just happened
2 to luck out to join a company that was involved in a
3 reverse merger, and I was arrogant enough to think that I
4 could become general counsel at the Bank of America at a
5 young age, so I applied for the general counselship of
6 BNA when they already had a general counsel, and it
7 turned out they referred my resume to this new upstart
8 company, and that's how I wound up at VISA.

9 It's just luck, as I say. I wound up there at
10 a time when I was the eighth employee or the tenth
11 employee of VISA. We were all in one little room trying
12 to do business, and as I remember it then, it's almost
13 unbelievable to realize that in those days, everything
14 was paper.

15 You go into the merchant and you go zap zap,
16 and you would get a sales draft, and that sales draft
17 would be sent to the bank, and the bank would actually
18 mail it to the issuing bank, and an authorization had to
19 be received.

20 Would you believe the way a bank would get an
21 authorization is using the telex system?

22 Can you imagine a customer sitting at the store
23 waiting for a telex to go to the issuer, and a telex
24 coming back, and that's how it was in 1970.

25 Now the world has changed greatly. VISA has

1 changed that today where almost 95 percent of the
2 transactions in the United States are fully electronic
3 data capture, so paper is gone, and transactions take
4 place instantaneously, and obviously everybody has
5 benefitted from that innovation.

6 What are the drivers of innovation as I see
7 them?

8 Well, of course the first driver and the most
9 important driver for us in 1970 in the early days is just
10 keeping up with the business.

11 The business was growing, and we needed to put
12 in the infrastructure just to be able, to be able to
13 support the growth of the VISA system.

14 The second driver was now that we have an
15 infrastructure of electronics, we have got to reduce the
16 costs.

17 The costs were going out of sight in terms of
18 losses, and we needed to drive those costs down, so that
19 was the second driver of innovation, and after you get
20 through those two drivers, and that is a lot of time
21 spent just doing those things because we didn't have have
22 lot of money to do it with, the next one driver is let's
23 increase market share.

24 Believe it or not, that was the third driver in
25 my view, and how were those drivers segregated?

1 Well, first is you want to increase your
2 existing products in existing markets through innovation.

3 Secondly, you want to take existing products
4 and you want to move them into new markets. That's your
5 second issue at least at VISA, where you look.

6 Thirdly, you want to take new products and move
7 them into existing markets, and fourthly, and last, you
8 want to have new products in new markets, and each one of
9 them becomes more and more difficult and more and more
10 expensive.

11 Needless to say, and I'll take you just quickly
12 through some of the innovations to remind you of them, we
13 talked a little bit about existing products and how we
14 went into existing markets, and we had to change that
15 product for security purposes, with mag strip, with
16 securing the mag strip with all of the electronics to
17 increase the efficiency and to drive that market share up
18 by making it more secure and competing harder against
19 our, our competitors in the existing markets.

20 We needed to move our existing products into
21 new markets, and so we went into supermarkets, and we
22 went into health care with our existing products, and in
23 order to do that, we had to have innovative products,
24 software systems and pricing.

25 Thirdly, we needed to develop the new products

1 in existing markets, and so we came out with debit cards,
2 on line, off line.

3 We are working on pre-paid cards. There are
4 new products being developed right now which we can talk
5 about in a few minutes because I want to spend time with
6 you talking about the future as I see it.

7 Probably you don't care how I see it, but I
8 thought I would do that anyway.

9 Fourthly, we wanted new products in new
10 markets, and so we went into Traveler's checks, and we're
11 going into the pre-paid cards and so forth, and we'll
12 talk about that because that's the last phase of the
13 development.

14 Now what does antitrust have to do with
15 innovation in this way that we have been through?

16 Well, first of all, let's talk about VISA
17 because it's unique.

18 VISA is unique in the sense it is a joint
19 venture, and as a joint venture, it is always looked upon
20 as a horizontal group of competitors making decisions,
21 and well, wait a second, we have got these competitors --
22 the banks -- who compete with each other, working on an
23 innovation on working on a product and dealing with how
24 to do it, and so it is always subject to antitrust
25 scrutiny.

1 Every decision, every move we make is subject
2 to antitrust scrutiny, so is that good? Is that bad? We
3 will get to that in a moment, but let me go back over the
4 history of my career at VISA, not with Steve Bomse. There
5 were lawyers before him, but he has been in this fight
6 for many years with me, fortunately for me, but we start
7 all the way back with when I started in 1971 with our
8 first antitrust suit, which was the Worthen case, and we
9 went to the Justice Department for guidance, and we
10 didn't get any guidance, and what did we wind up with? We
11 wound up with duality.

12 Now I was a fighter for duality, anti-duality.
13 We didn't believe -- we believed I should say that we
14 should keep systems separate, that we wanted to maximize
15 intersystem competition, and we did it at a time when we
16 were the smaller system.

17 This was not an attempt by a larger system to
18 keep their members out of a smaller system.

19 We were the smaller system in 1970 by far, and
20 yet we got no guidance, and so we were small and we
21 couldn't afford to fight a major antitrust suit, and so
22 what did -- the board after listening to this said throw
23 in the towel, and we threw in the towel, and within a few
24 years, duality was rampant, and we have duality today,
25 which means that every bank in this country, almost every

1 bank that issues, issues both VISA and MasterCard owns
2 both, votes for the directors on both, shares the
3 information between the two, and although we still are
4 vigorous competitors -- you probably read in the Journal
5 how we came out with STT and MasterCard is doing this.

6 It's more of a management competition, but the
7 banks are not particularly thrilled spending their money
8 seeing us beat up on each other. I have to admit that,
9 so there is a different kind of competition as a result
10 of duality.

11 The second lawsuit of major consequence was the
12 Nabanco case, so now we finally get rid of that one. The
13 next thing we're hit with was a case dealing with our
14 interchange fee, an issue that was very important to us
15 because I believe that without interchange fees, there
16 could be no float in this system. I still believe it.

17 And in those days, in 1971 when we adopted an
18 interchange fee, there were many lawyers, and I remember
19 them on our board saying you cannot have an interchange
20 fee. It is a per se violation of the antitrust laws.

21 Fortunately, our outside counsel said, you
22 know, this doesn't make common sense. How can you have a
23 per se violation of the antitrust laws when it's
24 essential to the viability of this joint venture? You'll
25 -- I think you're going to win that one.

1 And I said you think I'm going win that one?

2 Well, what's the guarantee?

3 He said there is no guarantees, so I went to
4 the board and I said there are no guarantees, and they
5 said what do you think we should do?

6 And I said well, you've two choices. You
7 cannot have an interchange fee and let's wrap this this
8 up and I'll move on to my next job, or we can at least
9 fight this battle, and I think we have logic, we have
10 reason, we should win this battle if it ever came up, and
11 it did come up.

12 Fortunately we had outstanding counsel. Steve
13 Bomse was with me on that, and we won that case.

14 I believe it was an important decision. It has
15 been an important decision because so many of the joint
16 ventures in the banking industry and the financial
17 services industry use interchange pricing. It's in the
18 telecommunications industry, and as a result, we have
19 seen the incredible expansion of the VISA system, but let
20 me point out the VISA system took the risk.

21 Had we not been willing to take that risk, we
22 might not or I might not be sitting here. You would, but
23 I might not.

24 Let's talk about the third major piece of
25 litigation -- the Dean Witter case, and we have counsel

1 for Dean Witter sitting in the audience here, so I have
2 to be very careful what I'm going to say.

3 I'm just being facetious. I'm going to say
4 exactly what I want to say.

5 But in the Dean Witter case, the only thing I
6 want to say about Dean Witter is that we believe that
7 this again was an issue of maximizing intersystem
8 competition and preserving the best of competition
9 between competing organizations.

10 They would differ with us, and they are
11 entitled to that difference, but that's not the point I
12 would like to make here today.

13 What the Dean Witter case was about was
14 membership in VISA -- an issue that plagued us from the
15 day we started in terms of who was entitled to come into
16 VISA. Could we draw a line to credit unions? Could we
17 draw a line to savings banks? Could we draw a line to
18 non-banks? Could we draw a line as to special credit
19 card banks? Where could we draw the line?

20 We drew the line finally because there was too
21 much risk and I personally could not come to a conclusion
22 where to draw the line, and we grew and grew and grew.

23 We drew the line and said we're not going to
24 take a competitor into the organization. That is the
25 line that needs to be drawn under any circumstance.

1 Fortunately, we won it. We lost in the lower
2 court.

3 The risk to VISA in case anybody hadn't read
4 the lawsuit, according to Dean Witter was \$1 billion in
5 damages. I will repeat that -- \$1 billion.

6 Now I think most industries would be
7 disincented from doing something if they had that kind of
8 potential liability.

9 We took that risk, and we won, but I have to,
10 to say once again, if we had lost it, you would have
11 somebody else testifying here today. That's for sure.

12 It took courage to do it. It was the right
13 decision I believe because following Dean Witter was
14 American Express and every other competitor who had
15 demanded access into VISA.

16 Now what does that, what is the lesson of that
17 case?

18 The lesson of that case is it was a rule of
19 reason case, and what guidance did rule of reason give
20 us?

21 We went to Justice. We came to the FTC for
22 some help. We got very good, very good understandings of
23 the problem, but at the end of the day, I hate to say it
24 -- I'm not saying this in a mean way, or I'm just saying
25 we didn't get the support of the government. It

1 basically was VISA, it's your problem, face it. You're a
2 man. Face it.

3 That's fine. And we faced it, but had we lost
4 it, we could have been exposed to incredible damages.

5 What guidance does rule of reason give us?
6 First of all, the judge, a very nice brilliant judge, had
7 very little antitrust experience, and most Federal
8 District Court judges have very little antitrust
9 experience, so the guidance they give the jury is not
10 particularly illuminating.

11 You go to a jury of people who really -- I know
12 the Constitution protects the plaintiff, and I understand
13 that, but you're going to a jury, how in the world are
14 they to understand the implications, the economic
15 implications of these things? God only knows.

16 So when you have a rule of reason case, you're
17 in the hands, hands of the gods, if I can put it that
18 way.

19 And every time we take an act, and we have, I
20 agree that probably per se doesn't apply to VISA. It's a
21 rule of reason case, and I say what's our percentage of
22 winning? It's you have got a sure case. It's what's our
23 percentage of winning? Well, 60/40, 70/30. Go to the
24 next lawyer, it's, I think it's 30/70.

25 Someone has to make a call, and it's the Board

1 of Directors that makes the call, and they turn to me and
2 say what's your opinion, and I'm saying hm, my job is at
3 stake, what should I say? What's the right thing for
4 VISA? Put all that in the equation, and be truthful, and
5 tell them as it is, and hope that if it's something
6 important to VISA that they will take the challenge, but
7 again, I want to make the point that every act of VISA
8 has that potential challenge, and I will tell you now
9 that we have refused to take decisions which in my
10 opinion would have been consumer welfare.

11 I can give you one perfect example we have
12 refused to do it because of the risk involved, and it's
13 wrong, but I could not in good conscience push the board
14 into that kind of a decision for the fear of rule of
15 reason case.

16 That covers the past. What about the future?
17 Well, the future is much more complicated than the past.

18 How do I see the world five to ten years from
19 now?

20 I see the world of electronic commerce, a world
21 in which you as a consumer will be able to shop from
22 anywhere you want to be.

23 You will be able to do your banking from
24 anywhere you want to be, but in order to do this
25 electronic commerce, the electronic infrastructure needs

1 to be put in place at great cost and at great challenge
2 and at great risk, and one of the risks being the
3 antitrust risks.

4 Now what does it mean to have electronic
5 commerce?

6 Well, it means being able to use your personal
7 computer from your home.

8 It means being able to use any personal
9 computer wherever it's located.

10 It means having a personal digital assistant
11 with you in your pocket.

12 It means having an electronic wallet to
13 transfer funds between you and other people.

14 It means being able to bank with your bank
15 without ever having to walk into that branch again, and
16 frankly, I haven't been in a bank branch -- I hate to
17 admit this -- I don't think I have been in a branch in
18 two years. I can't remember.

19 Who wants to go, when you can go to an ATM, you
20 can use the phone, why would I want to be hassled with
21 lines? I don't know.

22 It will be a lot better in the future, but we
23 need to do a lot of things to get there, so what do we
24 need?

25 We need software, lots and lots of software

1 that is going to go into the personal computer.

2 The client, we need service software. We need
3 telecommunications. We need standards. We need
4 interoperability, and we need an efficient way to create
5 all of that for privacy, security, and authentication.

6 I will tell you that VISA is going to be, if I
7 have anything to do with it, is going to be on the
8 leading edge of this electronic commerce because you
9 can't have an electronic commerce without a payment
10 engine. It doesn't work.

11 So who's going to come up with this payment
12 engine? The payment engine I foresee is a chip card
13 which will have all your relationships on it, which will
14 have digital cash on it, which will store information,
15 which will be usable in PCs, in PDAs, in ATMs, which will
16 be used in electronic wallets, which will have
17 encryption, will provide privacy, security, and
18 authentication.

19 Is there such a chip today? Yes. The power is
20 there. The price is too high. To put such chip out
21 today, it probably would run between, and I can't exactly
22 give you the figure, but I will estimate somewhere
23 between five and ten dollars a chip.

24 We need to drive that price down. In order to
25 drive it down, we need to have cooperation to be able to

1 get volume orders, and we need to do a lot of research to
2 make sure that there is interoperability of those chips
3 with all of the equipment that will be put in the field,
4 so you need standards, and probably as you have read,
5 VISA and MasterCard have announced standards with respect
6 to chip deployment, both for the chip and for the, for
7 the, for the point of sale device.

8 We are in the process, and you probably have
9 heard this, we have a joint venture with Microsoft which
10 has caused some consternation among some, but we need to
11 get on with it, and there is a tendency to be afraid of
12 these joint ventures and especially what are the
13 implications of them not only legally, but business-wise,
14 but we need to get on with this, and of course, as I said
15 before, you need software, you need telecommunications.
16 You need hardware, and you're going to need content, so
17 you need to have joint ventures with content providers.

18 That's part of what the joint venture will be,
19 so now what I'm seeing for our future, for VISA's future,
20 is that we need to make these joint ventures among joint
21 ventures in a sense.

22 The VISA is a joint venture. It needs to joint
23 venture with the likes of a Microsoft, the likes, and I'm
24 not naming these because it has any meaning, I'm just
25 giving you the likes of an AT&T, the likes of a content

1 provider like Time Warner for entertainment, the likes of
2 banks for content for banking, hardware manufacturers who
3 will bring out the terminals at point of sale who will
4 work with us to have the standards we need to induce it.

5 We need to figure out a way where it's a
6 chicken/egg -- how do we get people to move into
7 compliance before we have the actual chip cards out
8 there, or do we need to get the chip cards out there
9 before we have the terminals, and why would someone want
10 to invest in chips if there is no place to use them, and
11 why would anybody want to have terminals if there are no
12 chips to be used in them?

13 It's the the chicken and egg dilemma that VISA
14 faced in 1970.

15 There are ways to do that, but when we do it,
16 we're taking big antitrust risks again because we need to
17 do incentive pricing.

18 The minute we talk about pricing, oh, boy, the
19 joint venture setting, a price, is this a price fixing
20 thing? Is it legal, illegal? So we -- Steve and I
21 haven't even talked about it. You're the first to hear
22 about it, but this is, this is in the future.

23 It's something that has me greatly concerned,
24 but I will say this, that we need to get on with it. We
25 need to get there because if we don't do it, the

1 standards will be set outside this country.

2 We're behind. I hate to say this. We are
3 behind in chip card development in this country. We are
4 behind in the deployment of chips at point of sale.

5 We are behind in some of the in-home banking
6 infrastructure. It's already in place in France, in
7 Europe, so we have got to get on with it.

8 Now what does that mean for us in terms of
9 antitrust and its, whether it will have an effect on us.

10 We need predictability. You can help us figure
11 out a way to give you predictability that we don't have
12 to risk our neck each and every time we do something that
13 we and you believe is in the best interests of the
14 consumer.

15 Then you have done a great service for this
16 country. You have also done a great service for VISA,
17 but I don't want to do it because it's going to be
18 something that's anticompetitive. It's something that
19 ought to be encouraged.

20 Secondly, we have got treble damage liability.
21 We could come to you and you could bless us. The Justice
22 Department could bless us and say fantastic, but you have
23 no control over people or businesses suing us in state
24 courts.

25 You have no control over them moving into

1 federal courts, and even worse, let me make this point --
2 if VISA is a joint venture, an international joint
3 venture, the U.S. antitrust laws is just a small piece of
4 it.

5 We have to comply with the EU competition laws.
6 We have to comply with every country's antitrust laws.

7 When we do an antitrust compliance for anything
8 that we are coming out with, it could take me months.

9 I mean you know how long -- it isn't just going
10 to Steve Bomse. I've got a network of antitrust lawyers
11 all over the world, and so U.S. is only a small little
12 example because you have to comply with 50 state
13 antitrust laws, plus the federal antitrust laws. That's
14 only one little part of the dilemma for VISA.

15 So I'm saying treble damage liability, just
16 escalate that to a point that I think is unreasonable,
17 especially if we have come to the regulators, they know
18 about it and they bless it, why should there be treble
19 damage liability? It makes no sense.

20 I think that I have probably taken enough of
21 your time.

22 Recommendations -- I don't, I really honestly
23 haven't thought about that very long.

24 If someone were to ask me, I could come up with
25 recommendations, but I wouldn't presume to tell you what

1 to do.

2 I just wanted you to be aware of what's
3 happening and hope that you will use good judgment and
4 make sure that VISA, if it is in other joint ventures, if
5 they are trying to make for a more competitive society,
6 trying to help the U.S. economy move forward in helping
7 consumers have a better way of life, that there is a way
8 to do it and not, not be challenged or be subject to
9 undue risk.

10 Thank you very much.

11 COMMISSIONER STAREK: Well, thank very much. It
12 was fascinating testimony. We appreciate your coming
13 today and sharing it with us.

14 I think Commissioner Varney has a question.

15 COMMISSIONER VARNEY: Thanks. First of all, I
16 apologize for being up and down. I was not able to clear
17 my calendar. I have to keep going out and taking a
18 couple of calls, but I found both your presentations very
19 interesting.

20 If only seven out of ten people have VISA's
21 it's not my fault. I have plenty in my household. I
22 want to assure you it's not my fault.

23 I may have missed this in your remarks, so
24 please forgive me if I did, but as I was talking on the
25 phone, I was also -- these are internally televised, so I

1 was able to try and keep one eye on them.

2 It seems to me that you were really advocating
3 interoperability of the systems and standard setting as
4 procompetitive, which I tend to agree with, but -- and I
5 may have a further misunderstanding here -- your current
6 relationship with Microsoft, I thought you were engaged
7 in developing proprietary systems, you and Microsoft.

8 It is not proprietary?

9 MR. KATZ: No.

10 COMMISSIONER VARNEY: Didn't MasterCard pull
11 out and the whole thing fell apart?

12 MR. KATZ: You know, I hates to wash dirty
13 laundry in public.

14 COMMISSIONER VARNEY: That's okay. It's been
15 in the paper.

16 MR. KATZ: Well, the true story hasn't been.

17 COMMISSIONER VARNEY: Oh, good. I want the
18 true story.

19 MR. KATZ: You're talking to Liz Smith right
20 now!

21 But the truth is that, and I won't, I'm not
22 going to talk about MasterCard. They can say anything
23 they want. I'm not going to say anything negative about
24 them. I'm just going to tell you factually what the deal
25 is with Microsoft. You can judge for yourself.

1 Am I under oath? No! But you have my word I'm
2 telling you the truth.

3 COMMISSIONER VARNEY: Thank you.

4 MR. KATZ: The truth is that there are two
5 parts of it. That has been confusion.

6 With Microsoft, we had an agreement to come out
7 with an open standard that there would be nothing
8 proprietary in the standard.

9 The standard would be made available to anybody
10 that wanted it. As a matter of fact, if you know how to
11 use a browser, and you wanted to go to the VISA site, you
12 can download that standard right here today and bring it
13 on your desk, so if it's proprietary, why would I put it
14 out on a browser?

15 Now anybody, and I say that anybody can code,
16 decode, to that, to that standard.

17 What the confusion is is that once you have a
18 standard, you can develop proprietary software to meet
19 that standard. It has to be interoperable. Otherwise it
20 doesn't work, but you can have a smoother working
21 software, you can have a more efficient working software,
22 you can have a cheaper working software.

23 You can put bells and whistles on your software
24 as long as it meets the minimum standard of
25 interoperability, and what's being confused here is that

1 yes, Microsoft has developed software, and it is
2 proprietary to Microsoft.

3 I can't ask Microsoft to spend millions of
4 dollars, which they have, and then turn it over to their
5 competitors. I mean Netscape wouldn't do it. Microsoft
6 is not going to do it, but what we have agreed, and
7 without any question, is that the standard that we're
8 advocating and have adopted with Microsoft is totally
9 open to the public so without any issue on that point --
10 none.

11 Anything to the contrary that you read is not
12 true.

13 That's all I can say on that point.

14 COMMISSIONER VARNEY: Okay.

15 COMMISSIONER STAREK: I would like to explore
16 your feelings on the duality issue.

17 Do you think that innovation in your industry
18 would have been different if you and say MasterCard had
19 separate memberships?

20 MR. KATZ: I'm not, I'm not sure it would have
21 been quite different, but it would have been a lot
22 faster.

23 One of the things that duality creates is that
24 because the bank is in both, they don't want to have to
25 comply with two different systems at different points

1 because they, if they're going to do a software change to
2 comply, they want to do it one time, so what slows you
3 down is that the bank slows you down to make sure that at
4 the time that they do the change, they do it for both
5 VISA and MasterCard, and if VISA is going to make that
6 change, they have cost saved. Well, shouldn't that
7 change be made available to MasterCard because after all,
8 we issue both cards.

9 Why do I want to enhance VISA against
10 MasterCard? Do I want to raise my costs to my
11 MasterCard?

12 So you wind up with the -- it may not change
13 the, what we do, but I think it has a slowdown effect,
14 and I really haven't thought about what differences would
15 have happened as a result.

16 I'm not sure they would have, but I really
17 don't know the answer to that.

18 It could. It could have, but my biggest
19 problem right now is the slowdown we see, perfect example
20 is STT. If you want one, there you are, and if you think
21 that is the STT context, MasterCard is trying to slow
22 this process down because they are so far behind, and do
23 you know what's going to happen? I will predict it for
24 you.

25 I hate to even admit this, but the banks are

1 going to insist there be one standard because they are
2 not going to deploy two different pieces of software in
3 their bank, so even though we're out there in front ready
4 to go, it isn't going to go until MasterCard says we're
5 ready to go. You're forced to the table because of it.

6 If we didn't have in the bank and we had our
7 group and they had their group, we -- this thing would be
8 out there already.

9 COMMISSIONER STAREK: Aren't they within it?

10 MR. KATZ: They're with Netscape and -- they're
11 with Netscape and IBM, but nothing can get done because -
12 - until this convergence because of duality, the banks
13 aren't willing to allow us to go forward with this
14 development because they say it will cost us twice. Why
15 would I want to have two different securities? Let's
16 have a common security.

17 COMMISSIONER STAREK: One other thing -- in
18 your prepared written remarks, you allude to the fact
19 that we need to be a little bit more forward thinking I
20 guess in determining how to judge joint ventures, and I
21 wondered if you had any specific thoughts, in other
22 words, you know, you made it clear that you think treble
23 damages is, you know, is certainly a deterrent to
24 engaging in certain kinds of joint ventures, but I
25 wondered if you thought there was any way in the way they

1 are they looked at by enforcement agencies and by the
2 courts that needs to be rethought?

3 In other words, should a market power screen be
4 adopted, or is there some specifics about the rule of
5 reason analysis that, that is causing the heartburn here.

6 MR. KATZ: Well, if market power is as clean as
7 I would like, maybe that would be good for a screen, but
8 I've tried to understand market power for a lot of years,
9 and certainly when you are in one line of business and
10 you're trying to get into new areas of business, what
11 does the market do? If you look at the traditional -- so
12 no one even can tell you what -- I know that in the Dean
13 Witter case, Dean Witter had one view of market power. We
14 had a different view of market power.

15 I don't know what was happening at Dean Witter,
16 whether they had a divergence of views of how to even
17 define market power there.

18 I know that we had divergence of views of
19 trying to figure out market power.

20 I think we had it right, and the court agreed,
21 but I think you need to give it some guidelines. I think
22 you need to give the court some guidelines.

23 These are inexperienced people. I mean they
24 are wonderful. The judges are wonderful. My experience
25 has been they have been honest, trying hard to figure

1 this out, but they don't have a clue about what's going
2 on.

3 They maybe get an antitrust case once every
4 four or five years, some of them, or once every three
5 years, and it isn't exactly this.

6 They cite cases from 1890. I mean we've got
7 Topco to deal with, and what does that mean? And I could
8 tell you a lot of things how I feel about the antitrust
9 laws, but I don't think you want my personal views here
10 at this time, but I think what I'm asking for is that you
11 have the expertise.

12 This organization, the Justice Department, if
13 there are any people who are brilliant, know this field,
14 it should be right here, and I believe it is here.

15 I have talked to people on the staff here, and
16 this is a wonderful staff you have. You're very lucky,
17 but what needs to happen is take that expertise and give
18 the guidance to the courts. Make them clear on what this
19 all means.

20 Maybe you can't figure it out. That's
21 possible. But if you can, I think clarity breeds
22 predictability, which leads to I shouldn't do this, or I
23 should do this. Once the decision, I should do this, and
24 we ought to all be coming from the same rulebook.

25 You know, it's like golf. If you've got the

1 rules, you know how to play.

2 I just, I just would like to know what the
3 rules of the game are.

4 I can't -- be honest with you, I can't figure
5 it out. I've been doing this -- I'm not an expert in
6 antitrust, but I have been playing that -- I shouldn't
7 say game, but I have been playing in this field for 25
8 years, of antitrust, and I still can't figure it out, and
9 I try the best I can.

10 I think I have some people who thank God
11 represent us who are experts in it, but when I listen to
12 them, even they, two of the most brilliant antitrust
13 lawyers I know sit in the room and they debate with
14 themselves as to what it should be, and I'm saying now
15 wait a second. This is not right.

16 There should be enough clarity among the
17 experts.

18 That's all I'm saying.

19 COMMISSIONER STAREK: Thank you. Questions?

20 MS. VALENTINE: I guess I would just follow up
21 on Commissioner Starek's question, which is thank you
22 very much for attributing us with substantial powers, but
23 you really do have some of the best attorneys helping
24 you, and in terms of thoughts about where one should go
25 and rationalizing joint venture law, if do you have any

1 suggestion about either market power screens,
2 registration under NCRA, NCRPA, if that should change, if
3 you -- I would be interested even if you have issues with
4 the foreign participant aspect of the NCRA since you have
5 indicated you're an international joint venture, so any
6 thoughts would be appreciated.

7 MR. KATZ: And I might point out that as you
8 know, you can't go retroactively in that statute for some
9 weird reason. I can't figure that out, but that's -- I
10 know, I didn't draft it and I haven't figured out why it
11 isn't retroactive.

12 For a company that was formed in 1970, you
13 can't even file, so I don't understand that, but leaving
14 aside some of these, and I frankly can't even figure out
15 what the statute means. I've tried to read it. I've
16 asked my counsel, and they can't figure it out, what it
17 means, sometimes, so that even that statute needs some
18 clarity, but I can say that, you know, if I point to, for
19 example, the EU market, I just know one thing about it.

20 There are bad parts of it, bad parts to the
21 antitrust laws in the EU, but there are some very good
22 parts.

23 I know one thing, that when I file my documents
24 before the Commission, I have no liability. I mean I'm
25 protected.

1 Now the bad part is I think the Commission
2 personally has, has too much power. They don't have
3 enough -- there isn't a -- the screen is a little scary,
4 but at least one thing is for sure -- when I file, when I
5 register my bylaws and my articles, I'm free of damage
6 liability.

7 Now if a -- now they are free to investigate.
8 They are free to tell me you can't do this, but once it's
9 before them, I am free of liability.

10 I want to disclose everything. As a matter of
11 practice, VISA has been, I'll predict we have been the
12 most open organization with the Justice Department maybe
13 in the history of the Justice Department because of one
14 reason.

15 I'm fearful by the structure -- we have had
16 more meetings with the Justice Department from 1970 all
17 the way through on. Everything we do, we have talked to
18 the Justice Department, but it doesn't give me any
19 comfort.

20 They look at it, but they -- there is no
21 comfort level, so maybe there is something we can talk
22 about in terms of a way where if you file something, and
23 it isn't challenged within a certain period of time, that
24 you at least are free of treble damage liability --
25 something.

1 MS. DE SANTI: I would like to follow up on
2 this.

3 A lot of your testimony was resonating. There
4 was a period of time when I was in private practice, and
5 one of the cases I worked on involved a joint venture
6 that had gotten a business review letter from the Justice
7 Department blessing it, and then there was a subsequent
8 private suit with a Federal District Court judge denying
9 summary judgment and citing cases from 1928 and 1930 --
10 very brilliant judge, and the suit was settled rather
11 than pursue it farther because, precisely because of the
12 types of issues that you're talking about, so I know that
13 certainly your experience is not unique.

14 If you do pursue this farther, and I would very
15 much like to request if you have real suggestions you
16 would like to put forward for consideration, we would
17 very much like to get that on the record.

18 When you think about those issues, could you
19 also think about how, how, you know, if you file for, and
20 in the sense that you were just talking about, that there
21 is an exemption that is, is issued in some sense, a
22 certain period of time goes by and the antitrust agency
23 doesn't challenge the proposal, is there any way to take
24 care of changing circumstances down the road?

25 Is there, you know -- and I don't know actually

1 know how the EU does it. I know that's an issue that has
2 been raised from time to time when there have been
3 discussion about this type of approach, but we would very
4 much like to get --

5 MR. KATZ: Can I make one slight comment on
6 that?

7 MS. DE SANTI: Please do.

8 MR. KATZ: I'm not an expert on antitrust --
9 period.

10 I just, I just am subject to it all over the
11 place, but in the EU, the changing circumstances, the
12 burden is on the Commission, and it's also the way it
13 works practically speaking.

14 If someone is injured, and feels injured, they
15 make the complaint to the Commission, that's where they
16 go, and so that raises the level to the Commission of I
17 better look at this, and you get a comfort letter.

18 Generally speaking, they have so many
19 registered or file exemptions, they don't have time to
20 get it, so what it does in effect is give us the comfort
21 until they come in and challenge you, you don't have this
22 -- you're open about it. Anybody can see it, you know,
23 on the Commission, and anybody can challenge it, but if
24 it sits there until a complaint is made, or the
25 Commission takes it on their own because they hear about

1 something and they want to challenge it, you're a safe
2 harbor.

3 MS. DE SANTI: Could I ask you, you said you
4 had an example of when VISA had decided not to go in a
5 particular direction because of the fear of a rule of
6 reason case, and you believed that it would have been
7 pro-consumer welfare.

8 Could you give us that example?

9 MR. KATZ: There are many, but the one that
10 popped in my head at that moment was this, this is so
11 simple, you would say oh, come on, this doesn't make any
12 sense.

13 It doesn't, and that is let's say we have a
14 merchant who is, who is creating fraud, or there are lots
15 of losses. He has very bad shoddy merchandise, and we --
16 but he has a bank that's willing to sign that, sign that
17 merchant, but that merchant is creating losses for
18 consumers, doing, doing things that we don't think the
19 consumer should be subject to that, and we want to
20 terminate that merchant.

21 Now we, early on, we wanted to just set up a
22 policy that says that if VISA reviewed it and found
23 losses to be excessive, we should just be able to
24 terminate that, but the fear, of course, was quote,
25 unquote, group boycott.

1 This is a joint venture. The banks as a group
2 have said we won't let anybody deal with that particular
3 merchant and so we didn't deploy for a long time.

4 Now we have put in some procedures, new
5 procedures, but for a long time, we just sat because of
6 the fear of this, we sat back and didn't protect the
7 consumer against those merchants that I wanted to
8 terminate, that the board wanted to terminate, but it was
9 fearful of a group boycott concept, per se violation.

10 Under the rule of reason, do you have the right
11 procedures? How do you do it? What -- you know, it just
12 got to be such a mess that we passed on it at that time.

13 MS. DE SANTI: Thank you.

14 COMMISSIONER STAREK: Well, thank you very
15 much.

16 I think our reporter has been extraordinarily
17 patient, and I think we need to give her a short break so
18 she can change the paper, et cetera.

19 I would propose that we reconvene in about five
20 or six minutes.

21 Is that all right with everybody? And hear
22 from the remainder of our panel this morning.

23 MR. KATZ: Well, thank you very much. I'm
24 sorry I get so excited, but --

25 COMMISSIONER STAREK: Terrific. I really

1 appreciate it.

2 (A recess was taken.)

3 COMMISSIONER STAREK: Okay. I think we're
4 ready to reconvene here.

5 Our next witness is Samuel Miller. Mr. Miller
6 joined the law firm of Folger & Levin January of 1995,
7 and during 1994, Mr. Miller served as the special trial
8 counsel in the Antitrust Division of the Department of
9 Justice.

10 He was the lead counsel in the Microsoft
11 investigation and prosecution, which concluded with
12 filing of a consent decree on July 15th, 1994.

13 He has also served on the Antitrust Division's
14 Intellectual Property Task force.

15 Mr. Miller has written, lectured extensively on
16 among other things, ethical issues for attorneys,
17 attorney-client privilege, and federal civil procedure.

18 In addition, he is an active member of the ABA
19 litigation section, currently the Chairman of the
20 Antitrust Litigation Committee, and he previously served
21 as Chair of the Consumer Rights Litigation Committee, so
22 Mr. Miller, thank you for coming, and we look forward to
23 your thoughts.

24 MR. MILLER: Thank you, and I appreciate the
25 opportunity to be here.

1 When I was at the Department of Justice, I
2 focused on monopolizing conduct of a single firm, but
3 today what I want to address is collaborative activity in
4 particular in the computer industry.

5 It's now estimated that 30 percent of American
6 households have personal computers, and in the last
7 several years, the focus has shifted from stand-alone
8 desktop computing to connecting computers. The explosion
9 of the Internet in the last two years reflects this
10 trend.

11 Because of this, the need and importance of
12 interoperability has become even more essential, and I
13 define interoperability as the ability of hardware or
14 software manufactured by one company to communicate with
15 or work compatibly with products of competing or
16 complementary suppliers.

17 Interoperability between products enhances
18 consumer choice, lowers prices, and promotes innovation.

19 Collaboration today you see among all kinds of
20 computer manufacturers to achieve -- Plug and Play is one
21 example of this.

22 So in today's environment, antitrust policy
23 should promote rather than hinder efforts to achieve
24 interoperability.

25 Interoperability in the computer industry is

1 not generally achieved through either government standard
2 setting or even industry-wide formal standard setting
3 bodies.

4 Rather it is most often achieved through ad hoc
5 voluntary coalitions which get together to set
6 compatibility standards or information -- I'm sorry --
7 interface definitions.

8 More formal efforts to set standards are just
9 too slow. Where product life cycles are sometimes as
10 little as six months and oftentimes are twelve months to
11 eighteen months, the benefits of compatibility standards
12 in the computer industry have been recognized by
13 commentator and professor David Teece, who you will hear
14 from, and I quote him in my paper.

15 One paradox of antitrust law is that a dominant
16 firm which can muscle or coerce an industry toward its de
17 facto proprietary standard faces less antitrust risk than
18 a collaborative effort by smaller competitors to agree on
19 a standard, and the particular irony of this situation
20 today is that most often, the alliances and consortia
21 which have been formed in the computer industry have been
22 by those companies with smaller market share in order to
23 compete against a dominant firm that's pushing its own de
24 facto standard.

25 Now the adoption of compatibility standards is

1 particularly important in the initial stages of a new
2 product introduction, and there are numerous benefits to
3 interoperability.

4 As I said, price competition is enhanced when
5 competing manufacturers can supply substitutable product.

6 The compatibility of system components takes
7 sound cards or graphic cards that facilitates the entry
8 of new competitors and reduces the risk of lock-in, and
9 the acceptance of standards also encourages the creation
10 of complementary products and is important in gaining the
11 benefits of network externalities.

12 Go back ten years and think about the PC
13 industry.

14 I suggest that it was not so much the
15 introduction of the IBM PC that caused the explosion of
16 the industry that we see today.

17 Rather I think it was the acceptance of a
18 standard of IBM compatibility in hardware and software
19 that enabled hundreds of companies to get into the
20 market, lots of new entrants that pushed innovation,
21 increased price performance ratios, and lowered prices,
22 and that's what led to benefits to the consumers in terms
23 of the PCs that we have today.

24 That was done by having standards that could --
25 that were open so that many manufacturers could meet the

1 standard and compete in the implementation of the
2 standard as opposed to having one company try to impose a
3 proprietary standard.

4 Now the adoption of a standard increases the
5 installed base with respect to an emerging technology,
6 and that creates greater incentives to produce products
7 which meet or complement the standard, and a
8 collaborative standard for new technology needs actually
9 to achieve a critical mass of companies that support it
10 before, before it's worth supporting, and we have
11 examples that we're watching today, one of which is what
12 Mr. Katz talked about is the protocols for secure
13 transactions over the Internet, and you have two major
14 camps fighting about what standard is going to be the one
15 that is accepted.

16 Another example is with respect to the emerging
17 desktop videoconferencing technology, and another is the,
18 the issue of what format would be accepted for the new
19 digital CDs.

20 Another is modem compatibility, which becomes
21 increasingly important for the new generation of modems
22 so that consumer users can send and receive sound
23 pictures and video as well as text, so the only way to
24 achieve those standards quickly is through a
25 collaboration of competitors who can settle on open, an

1 open compatible standard.

2 Even -- and you read in the trade magazines
3 such as PC Week, you read about industry coalitions which
4 are formed on just about every issue, and I cite again
5 some of those in my paper.

6 Now I think Commissioner Varney in speeches
7 this year has recognized that actually new product
8 introduction can be slowed when there is a battle of
9 standards, and I will quote her as saying many consumers
10 experienced hesitation and reluctance when Beta video
11 cassette recorders competed with VHS, when eight track
12 battled for market share with cassette tapes, or when
13 vinyl gave way to compact disks, so with respect to the
14 examples I mentioned, we may be in that phase today.

15 The Commission, commissioners recently
16 recognized the procompetitive benefits of standard
17 setting because it gives consumers a baseline to compare
18 increasingly complex items and allows competitors to
19 produce compatible goods, but there are anticompetitive
20 potentials in standard setting.

21 For example, when -- and again I'm quoting
22 Commission Varney in a speech this year where she said
23 faced with competition from an emerging technology, the
24 holders of older technology could use the standard
25 setting process to deter entry or raise the cost of entry

1 of new technology.

2 A review of the case law on standard setting I
3 think reflects situations where existing companies have
4 tried to slow or retard the introduction of new
5 technology, but I would suggest that with respect to
6 collaborative efforts today to get out new technology,
7 that the antitrust laws should be interpreted and defined
8 to promote that effort, and not to deter it.

9 Given the rapid pace of technological change,
10 the opportunity for a standard setting effort to retard
11 innovation or improperly exclude market participants is
12 probably not substantial where firms are collaborating to
13 establish a common platform or interface through which
14 different suppliers of new products can operate in
15 harmony.

16 This is because the strongest motivation is to
17 agree on a standard so all the competitors can start
18 selling.

19 If the standard isn't there, then nobody can
20 sell, and that's different than situations where existing
21 competitors are trying to exclude a new technology.

22 I think that was the case in cases such as
23 Allied Tube or Hydrolevel or even in the Sessions Tank
24 case.

25 Now as I said, there is an irony because the

1 dominant firm with market power doesn't need to get
2 together with horizontal competitors to establish a
3 standard.

4 It can try to hijack, well, it can try to shove
5 the standard down everyone's throat, so I think although
6 some regulators have raised concern about the, the
7 dangers of some company, quote, hijacking the standard
8 setting process, I'm not sure at least in the computer
9 industry with respect to new technologies that that's a
10 significant risk, and the reason is that any firm that's
11 powerful enough to hijack the standard setting process
12 doesn't need to collaborate in the first place, so the
13 firms that need to collaborate are the ones to do so
14 because they don't have the market clout to do it on
15 their own, and that's why I don't think that generally,
16 there is significant antitrust risk in the collaborations
17 and consortia that you read about every day.

18 Now economists and maybe some lawyers have
19 debated about whether current antitrust policies prohibit
20 collaborative activity in high technology markets, but
21 the fact is that every day when you read the paper, you
22 see that these coalitions are forming, and so I would say
23 based on my unscientific observation, antitrust
24 enforcement policy is probably not a significant
25 deterrent to collaborative activity with respect to

1 compatibility standards or specifications.

2 However, it probably slows the process by
3 requiring more elaborate procedures and maybe
4 overly-broad participation rights.

5 No industry participant wants to be embroiled
6 in costly and time-consuming litigation because it
7 participated in a collaborative standard setting process
8 which a disfavored competitor tries to characterize as
9 illegal, a group boycott or a refusal to deal, and I
10 cited the Addamax case as a current example.

11 Now there the court correctly refused to apply
12 per se rules, but it also denied summary judgment and
13 said this is a rule of reason case which now is going to
14 expose the participants to a very time-consuming and
15 costly battle, so what can the Commission do to promote
16 interoperability, and I do have some specific concrete
17 suggestions.

18 One, I think it should continue to emphasize in
19 public pronouncements both by individual commissioners
20 and by the Commission as a whole that legitimate
21 collaborative efforts to set compatibility standards for
22 new technologies are procompetitive and should be
23 validated under the rule of reason.

24 Second -- and maybe one way to do this is to
25 look at the 25-year old advisory opinion issued by the

1 Commission in 1971 on the legality of proposed standard
2 certification programs.

3 I have, I did -- in doing a LEXIS search, that
4 I didn't find that overruled or even cited very much, but
5 when you go back and look at what's in it, at least I
6 respectfully submit that a number of the guidelines are
7 outdated, are inconsistent with current case law and/or
8 economic thinking, and I cite Guideline 4.

9 It says construction or specification standards
10 should not be used except in exceptional circumstances
11 and never when performance standards could be developed.

12 That I believe is inconsistent with technical
13 realities today, and certainly computer industry
14 practice, and I would hate to have that cited in a, in a
15 case, so I suggest that the Commission review that old
16 advisory opinion and perhaps change its guidelines.

17 Guideline 9 requires due process, including
18 timely hearings.

19 I think that requirement, if it was a
20 requirement, I think it has been overruled by the
21 Northwest Wholesaler Stationers case.

22 Guideline 11 calls for the validation of any
23 standard by independent bodies, and although Mr. Gellhorn
24 or Professor Gellhorn is going to address that, I don't
25 think that has flexibility to ad hoc coalitions of

1 industry participants who want to get their product out
2 in the market, so that's one specific way the Commission
3 could take action to help this process and help the
4 emergence of new technologies.

5 On the other hand, I think the Commission
6 should continue to be vigilant to prevent abuse by a
7 dominant firm with market power of a proprietary
8 interface standard, and I note that in the recent
9 proposed Silicon Graphics consent decree, which is still
10 pending before the Commission, there is a requirement in
11 the consent decree that SGI maintain an open architecture
12 and publish its application programming interfaces, and
13 the Commission noted that the purpose of the open
14 architecture requirement was to permit other independent
15 software developers to continue to write for the SGI
16 platform.

17 In assessing the procompetitive or
18 anticompetitive impact of standards, the Commission might
19 similarly examine whether interface specifications are
20 open and publicly available.

21 Fourth, in appropriate circumstances, the
22 Commission could encourage Congress and the Executive
23 Branch to promote interoperability in legislation and
24 federal government purchasing decisions.

25 For example, during the debate on

1 telecommunications reform, there were legislative
2 provisions which required interoperability, so the
3 Commission could continue to, to monitor legislative
4 activity and look for opportunities to, to express its
5 views on the procompetitive benefits of interoperability.

6 This also might have flexibility in terms of
7 the federal government's own purchasing decisions since
8 as I understand it, the federal government purchases more
9 computers than any other customer in the world.

10 Finally, the Commission might consider
11 declaring that collaborations to support interface
12 specifications or compatibility standards fall within the
13 protections of the National Cooperative Research and
14 Production Act.

15 It's questionable whether or not such a
16 collaboration would or would not fall within the literal
17 language of the Act, but it certainly is consistent with
18 the spirit of the act and the Congressional findings
19 which prompted the legislative changes in 1993, and that,
20 of course, would have the benefit of reducing the
21 exposure to the companies involved from treble damages to
22 single damages.

23 So those are my suggestions. I hope this is
24 helpful.

25 COMMISSIONER STAREK: Well, I can assure you it

1 is very helpful.

2 I appreciate your specific suggestions. They
3 are quite interesting.

4 I might add that until I read your testimony, I
5 had never heard of the advisory opinion on the legality
6 of the proposed standard certification program.

7 MS. DE SANTI: I think you were not alone in
8 that, Commissioner Starek.

9 Many of us had never heard of it before.

10 COMMISSIONER STAREK: I think before we get
11 into questions, we ought to hear from Professor Gellhorn,
12 and then we can cross-examine you together.

13 Ernest Gellhorn is the George Mason University
14 Foundation Professor of Law.

15 He has over the years taught at Duke
16 University, University of Virginia, served as the Dean of
17 Arizona State University, Case Western university, and
18 the University of Washington.

19 On a couple of occasions during his
20 distinguished career, Professor Gellhorn engaged in
21 private practice of law with the firm of Jones, Day,
22 Reavis & Pogue, and while at Jones Day, he was the
23 regional managing partner of the Washington, D.C. and the
24 Los Angeles office.

25 Professor Gellhorn is the author of

1 approximately 75 articles and four books on antitrust and
2 administrative law.

3 He is the co-author of the Supreme Court
4 Economic Review, and he is a former Chairman of the
5 American Bar Association Section on Administrative Law
6 and Regulatory Practice.

7 Thank you for coming, Professor Gellhorn.

8 PROFESSOR GELLHORN: Thank you very much
9 Commissioner Starek, and I'm very pleased to be here.

10 I am struck by the focus on innovation in this
11 1920's ornate building. I think it's a most appropriate
12 setting to consider it.

13 I also want to congratulate the Commission on
14 these hearings and to look at this issue, and want to
15 express my appreciation to Todd Miller of the firm of
16 Baker & Miller for his assistance in preparing these
17 remarks as well as for conversations I had with Susan De
18 Santi who probed and pressed me to think about some
19 issues more carefully.

20 I want to look at two questions really
21 together. Both involve shared activities, joint
22 ventures, and standard setting, because I think they
23 share a lot of common points.

24 They both can be used for very useful
25 beneficial procompetitive events and they can also be

1 covers to price fixing, cartelization, exclusionary
2 practices.

3 They both are addressed I think very
4 inconsistently and generally very badly in the law.

5 Joint ventures predominantly have been viewed
6 as an issue of characterization primarily because the
7 Supreme Court started out on a bad path and hasn't been
8 able to deviate from it.

9 If you look at the Timken, Sealy, Topco cases,
10 they looked at essentially what were partial integrations
11 to serve new customers, and treated them assumably as
12 market allocations or price fixing, and it has been very
13 hard to get away from them, so litigators constantly are
14 trying to push it into the per se category or get it out
15 instead of thinking what are the competitive effects of
16 this particular activity?

17 Whereas in standard setting, it's really quite
18 different. There in essence we have put a blind eye and
19 haven't looked at it very carefully except to say if they
20 really are egregious, we will put them in the boycott
21 category and perhaps consider them too stringently, but
22 in fact they have been saved by rules of damage, damages
23 or antitrust causation with the Sessions case because in
24 virtually every standard setting case of any
25 significance, government's the major purchaser, and if

1 government is the major purchaser, then it is very
2 difficult to, for any party to show injury as a result of
3 the standard setting arrangement.

4 The Sessions case broadly read, and
5 Noerr-Pennington are in unity to the point at which it
6 seems to me is a limited potential private damage cases,
7 so that what we have here is sort of an odd mix of on the
8 one hand the antitrust rules discouraging joint venture
9 activity that could be highly beneficial by imposing the
10 wrong standards, and rules in standard setting activity,
11 particularly when it's looking at independent bodies who
12 engage in restrictive standards.

13 That's quite different if you're not talking
14 about restrictive standards.

15 It has not given enough attention to an area in
16 which I think the then Professor Bork wrote about it at
17 length in Chapter 18 of his book on the antitrust paradox
18 -- predation by government processes.

19 Well, let me talk about both of them just
20 briefly by two examples that I think make my point
21 perhaps more clearly.

22 They both involve situations in which not too
23 recently, I was involved in giving some advice to
24 potential clients, and I will use them really as
25 hypotheticals.

1 The first involved a situation in which a
2 distributor, let's say in the State of Ohio, was involved
3 in the following market -- distributor of widgets.

4 The two dominant distributors in the state were
5 located in Columbus, Ohio, had about 90 percent of the
6 market, but there were several other smaller distributors
7 either in Cleveland or in Cincinnati, and two of them
8 came to me and said what we would like to do is offer an
9 alternative to the two major ones.

10 What we want to do is distribute the product --
11 agree on the price we will set, distribute it statewide
12 under a marketing program.

13 It's a regulated industry, so they were limited
14 within the state. Made it a lot simpler.

15 And my response to them was in the way they
16 described it to me, give me the size of your risk because
17 you're describing a per se violation that's a criminal
18 law violation. You can't do it.

19 And so we wrestled with it for a while. Well,
20 if you look at the case law, this was either price
21 fixing, or if we moved away from price, this appeared to
22 be something subject to the Maricopa County rules
23 requiring integration and risk sharing, but these two
24 small distributors did not want to integrate at all.

25 What they wanted to do was offer a supplier

1 statewide distribution with a joint marketing program
2 where one would take the northern half of the state, the
3 one located in Cleveland, and the other would take the
4 southern half of the state.

5 Under existing legal standards, it really was
6 very hard to figure out how they could do it.

7 Now we still came up with a proposal that they
8 could accomplish this by building a file that but for
9 their getting together, they couldn't enter the market,
10 that this was a necessary condition in order to enter the
11 market to help deconcentrate it and intensify
12 competition.

13 The second thing we drafted into their
14 arrangement was that there would be a term limit on the
15 agreement.

16 This isn't going to work for the VISA-type
17 operation because if they terminated after ten years,
18 you've got a lot of problems in terms of planning and
19 investment, etc.

20 Distribution arrangement is a little easier
21 than the production arrangement.

22 The third thing we put into the agreement is
23 prior to the ten years -- I asked the companies how long
24 do you think it would take for you to get the 35 percent
25 of the market?

1 We figured it would take at least three years
2 and probably five, so we thought in order to encourage
3 their investment, we would put into the agreement that
4 after the first five years, either one of them could
5 terminate upon a showing that in the prior year, they had
6 at least 30 percent of the market, and in other words, an
7 effort to show that we have put together the two
8 entities, though not integrated them, with some
9 sensitivity to antitrust concerns.

10 Nonetheless, I had to advise them that I
11 thought it was a tremendous risk because under the
12 existing case law and guidelines, we don't meet either
13 the characterization standards of Timko -- Timken --
14 excuse me -- Topco and Sealy on the one hand, or the
15 integration, risk sharing of Maricopa, and it seems to me
16 that that's an undesirable effect.

17 The second one I would point to is a sort of an
18 add-on to what occurred in Allied Tubes to talk about
19 standard setting, and I think it is a very common
20 process. Standard setting governs most major purchases
21 by large entities, particularly the government.

22 Take a look at almost all highway construction,
23 building construction, et cetera, and the illustration
24 would be the use of plastic coated electric wiring, which
25 has been kept out of markets for many years with the

1 famous situation in Chicago between the trade unions and
2 the building codes that are primarily by private
3 entities.

4 Under consensus standard setting procedures and
5 then adopted by government, they were able to keep out
6 plastic coated electric wiring, and instead what we had
7 was steel conduit wiring.

8 The other place where this is done is private
9 fire protection associations, National Fire Protection
10 Association or the Western Fire Protection Association.

11 You will also get this frequently in regions
12 where there are a lot of standard setting organizations,
13 and what happens is competitors participate in the
14 process primarily because they have the information, and
15 codes are written to govern existing technology and to
16 keep out new technology, and what happens then along the
17 way is that the consensus standard becomes the basis by
18 which they are kept out because under most consensus
19 standards, take, for example, the American Society of
20 Testing and Materials -- they provide for balanced
21 committees that review standards before they go through
22 subcommittee to a committee to the main committee to the
23 full assembly.

24 There is no requirement that anybody who
25 participate be knowledgeable on the subject. They have

1 got to be held, but the committees are balanced so that
2 they include the industry, academics, government, and
3 outsiders.

4 No one group can have more than 49 percent and
5 industry cannot have more than 49 percent, but under
6 traditional consensus procedures, one third plus one can
7 block it, and what happens, if you look at primarily the
8 plastics industry and highway construction, building
9 construction, it has struggled to get into the market I
10 would argue primarily because of standards.

11 The State of New York, for example, in 1989,
12 made the decision to allow plastic pipe into highways,
13 and the market penetration went from 1 to 25 percent over
14 a three-year period.

15 The State of California permits it, but
16 Southern California, which is governed by what is called
17 the Green Book construction standards, which is primarily
18 adopted by industry, not industry, by government members
19 who participate in a private standard setting group,
20 listen to industry guidance, had refused until very
21 recently to adopt, and so in essence the market
22 penetration was 1 or 2 percent.

23 The difficulty here in the standard setting
24 area is we have not articulated a careful standard as to
25 what constitutes a technical basis, what kind of evidence

1 is necessary.

2 If there is a dispute in the industry, as
3 inevitably there is in almost every new product, you can
4 find credible grounds for denying the standard, and to
5 the extent to which you permit interested parties to
6 participate, the results are not hard to predict, and I'm
7 not suggesting here that people even have to get
8 together.

9 They don't have to get together to make these
10 decisions, and what has happened is we don't look at them
11 with any care because particularly as the Allied Tube
12 case has been interpreted by the 9th Circuit in the
13 Sessions case, what happens is if the standard is adopted
14 by a government, governmental body, and that governmental
15 body is either a major purchaser or is followed by others
16 in terms of the decision they make on what to purchase or
17 not to purchase, the result is that the conclusion is
18 drawn or the inference is drawn that the damages are
19 caused by the government's decision not -- to adopt the
20 standard, not because private parties follow it.

21 I think that's a misreading of
22 Noerr-Pennington, because Noerr-Pennington, if you go
23 back to the facts, involved a situation where the private
24 parties petitioned the government to take particular
25 action to exclude in that case the trucker, the truckers

1 from the benefits of a particular regulatory scheme, and
2 protect the railroads.

3 That's not true of most standard setting
4 organizations.

5 What they do is adopt their own standards.
6 Government independently decides whether or not it will
7 act on it, and I would cut off Noerr-Pennington immunity
8 at that point.

9 Well, enough to tell the story for the next
10 point which I would raise is well, what should be done
11 about it?

12 And here my outline which I have proposed to
13 submit into a longer essay before these hearings are
14 closed for you, focuses on the following -- first, it
15 seems to me that we know enough about joint ventures that
16 we ought to have some specific guidance.

17 We have it in the merger area. We have it in
18 the intellectual property licensing. We have it now in
19 health care.

20 We don't have it in joint ventures, and this is
21 an area where we need it particularly because the case
22 law is so bollixed up and we have a tradition of doing it
23 when the case law isn't very sensible.

24 The merger area is, of course, the best
25 demonstration.

1 I likewise think we need guidance from the
2 agencies in terms of standard setting.

3 Here I think it involves not just liability
4 standards, but also the procedures that they use, and
5 while Mr. Miller is correct, it seems to me that the
6 Northwest Stationers case suggests that the due process
7 was not necessary.

8 I don't think it immunized standard setting
9 organizations whose procedures are designed so that they
10 can be abused to exclude competitors in the innovation.

11 The second point I would suggest if you were to
12 go ahead and draw up some guidelines, and that is to move
13 away from the concept of characterization.

14 It is not a helpful vehicle to say this
15 standard setting organization or this joint venture has
16 gotten together to fix prices or to exclude a particular
17 product that may be a necessary part of an effective
18 standard.

19 The issue is it seems to me first of all, what
20 is the effect in the marketplace?

21 Look at competitive effects. Identify the
22 market. Identify whether or not it's likely to restrict
23 output or increase output, lower prices or increase
24 prices. What are the efficiency justifications?

25 Third, I think it would be very helpful to

1 identify some safe harbors. Give the guidance. Provide
2 some predictability.

3 And fourth, focus primarily on some of the
4 procedural issues.

5 I think that's enough. I appreciate very much
6 the opportunity to participate.

7 COMMISSIONER STAREK: Thank you very much for
8 some very, very helpful suggestions.

9 What about integration? I would like to ask
10 both of you.

11 What weight are we supposed to give when we
12 look at a particular joint venture, when we do, about the
13 level of integration that's necessary?

14 PROFESSOR GELLHORN: Well, I would argue that
15 it is not a relevant consideration.

16 One could take it, look at the issue of
17 integration, and say yes, that's terribly essential to
18 its operation, and it made sense that they did it.

19 On the other hand, there may be situations in
20 which integration is not a particularly important
21 vehicle.

22 I think the illustration I gave of two
23 distributors of a widget in the State of Ohio, there
24 wasn't any need for them to get together.

25 In fact, you don't want integration in one

1 respect because they are more likely to go their own
2 separate ways.

3 If you force integration, all you're doing is
4 creating a merger when you didn't need one.

5 Indeed I taught a class last night and we
6 looked at joint ventures, and the question I posed to the
7 students was should we favor joint ventures or favor
8 mergers? And it was clear after about five minutes of
9 discussion that at least with a joint venture, they might
10 go their independent paths at the appropriate time.

11 On the other hand, it seems to me that
12 listening to Mr. Katz's description of VISA earlier this
13 morning, if they didn't have some integration of their
14 operations, they would have had increased costs, less
15 competition, and the marketplace wouldn't be benefitted,
16 so it has got to be a fact-specific inquiry.

17 MR. MILLER: Well, I mean with respect to
18 compatibility standards, you're not going to have
19 integration.

20 You're going to have competitors get together
21 to make sure that their products talk to each other, and
22 that benefits the consumers and increases the market, so
23 integration in that context really would be irrelevant.

24 COMMISSIONER STAREK: Well, thank you.

25 MS. DE SANTI: Yeah. I would like to ask both

1 of you to speak to each other's presentations with
2 respect to standard setting and get a better sense of the
3 areas where you agree and where you disagree on those
4 issues.

5 MS. VALENTINE: On that, just to make that
6 slightly more precise or to be sure to address this as
7 part of it is, the consensus aspect -- since obviously if
8 regulators and courts are thinking about eventually
9 looking at these things, judging fairness of the process
10 is a very difficult thing, and I would even be interested
11 in Mr. Katz's views as well on whether if he is ever
12 engaged in setting standards, anybody can after the fact
13 assess the fairness of that process.

14 PROFESSOR GELLHORN: Let me make two comments.
15 One, that in listening to Mr. Miller's presentation and
16 reading his paper, I constantly came up against the point
17 that the real problem here may lie elsewhere, and that is
18 the application of copyright protections open to these
19 designs rather than patent laws, and when you put the
20 copyright overlay on it, you all of a sudden change the
21 antitrust mix enormously.

22 Copyright laws generally I believe are 50-year
23 protection with a 25-year addition, no disclosure
24 requirement, in contrast to patent law.

25 If you deconstruct a copyrighted material and

1 then reconstruct it, that's infringement.

2 Not true in terms of patent laws; and you
3 protect under copyrights derivative works. If you write
4 "Gone with the Wind," I can't write the sequel whereas in
5 patent law, improvements are separately patentable and
6 you can invent around them, and so I think in many
7 respects, the problem that we see in the computerized
8 area -- operating systems, software programs -- are in
9 many respects due to the direction the Supreme Court took
10 in 1976 and led us down the wrong path to suggest you had
11 to copyright these items instead of protecting them by
12 patents, and that's something I would suggest you might
13 want to take a look at at some point.

14 In terms of the procedures and consensus thing,
15 I think there are several positions I would draw.

16 One is are we talking about an exclusionary
17 standard, or one that's inclusive? Because I view them
18 quite differently, and therefore I put much of what Mr.
19 Miller says in the, in a -- totally separate from what
20 I'm saying because he's looking at something I would
21 rather encourage than discourage.

22 Second is to what decree would competitors be
23 in a position to block innovation by others, and that
24 very much is affected by have you got the entire industry
25 in it, or do you have just one third of group?

1 There may be a requirement that everybody get
2 into it, and I think that's clearly the case if you're
3 talking about something that's going to be used on a wide
4 basis.

5 I thought Mr. Katz, on the other hand, pointed
6 out that in many respects, what occurs in his industry is
7 affected by this decision much earlier requiring duality,
8 and that if you look, for example, I believe Canada, they
9 didn't require it. They have a very different structure.
10 They have competition, and I would argue you wouldn't
11 have had the block on innovation, so one of the problems
12 here, of course, is despite all the praise that has been
13 given this morning, I think government is a big part of
14 the problem in having made the wrong decision using
15 antitrust in a far too rigid fashion, and we're stuck by
16 it.

17 We're prisoners of it. That gets me back to
18 guidelines.

19 With guidelines, you can get around it. You
20 can in essence put, like Nelson and Trafalgar, the
21 telescope to the blind eye and then design your own.

22 MR. MILLER: Actually I don't hear us saying
23 things that are in real opposition to each other.

24 PROFESSOR GELLHORN: No.

25 MR. MILLER: But it's a matter of the context

1 in which standards are set.

2 In a situation where you have a standard body
3 coming up with a certification and then it is
4 incorporated in a government code, so either you meet it
5 or you don't, it seems like there is more of a
6 possibility for exclusion, and what I'm talking about are
7 voluntary standards by some industry participants so that
8 they can talk to each other and build a market share.

9 One difference it seems to me in that context
10 is whether a standard is open or whether it's proprietary
11 and closed, and open standards are more procompetitive I
12 think than proprietary standards, so that's, those are
13 things that should be, those should be considered in
14 deciding on competitive effects.

15 Now what Mr. Katz referred to is a battle of
16 standards.

17 You have two or three groups that are fighting,
18 and consumers often want one standard, and it is true
19 that, you know, if you are in the camp that goes in the
20 wrong direction, and the market decides against you, you
21 lose, but that's the way the market should work, and I
22 don't know how, I don't know how you could legislate that
23 there ought to be one standard versus a battle of
24 standards, but it is true that in the, in the market,
25 that consumers wait until there's a convergence, and this

1 just happened with the format for the new CDs where Sony
2 and Toshiba agreed, and now you're going to see that,
3 that market rolling out, but I think open, open standards
4 really have to be the key in -- to prevent abuse by a
5 dominant firm or by, or perhaps by a collaboration of
6 firms with market power.

7 MR. KATZ: I'm hearing I think there is a
8 definitional problem here.

9 MS. VALENTINE: Right.

10 MR. KATZ: What people are talking about as
11 standards may be specifications.

12 When you -- in the VISA context, with
13 Microsoft, we are not -- that is not a standard. That is
14 a specification for a secure technology for VISA cards
15 and VISA cards only.

16 Now we make it open because we want to say
17 look, we think it's the best specification and we're
18 making it available to the industry if the industry
19 thinks it's the best specification.

20 Now you can do that through putting it in the
21 public domain and hoping that people say this is a
22 wonderful standard, thank you very much.

23 This costs a lot of money. This is not a cheap
24 thing to develop. This technical -- this is millions of
25 dollars were expended to develop the specification, and

1 we're making it public, so everybody -- we didn't ask for
2 agreement. We just made it available. That's a
3 specification.

4 A standard is quite different in the sense of
5 that's where the industry gets together and says let's
6 adopt a common standard even if it's not the best.

7 It's at least something that we can have and so
8 the consumers will go buy it.

9 Now I'm not an expert on that, but there is, I
10 would think there might be a danger of the timing of a
11 standard before it's ripe for establishing a standard so
12 that there needs to be some innovation first from the
13 competitors to make sure that what is adopted as the
14 standard is in the best interests of the consumer, so
15 it's a timing issue, but for a company like VISA or for
16 that matter for any company, they need to adopt a
17 specification for their business, and that's all we have
18 done, and so I hope I have made the distinction between a
19 specification and a standard.

20 I think that's important to keep in mind.

21 PROFESSOR GELLHORN: The difficulty is I can
22 think of illustrations where they cut against each other
23 soon that I would be a little bit cautious about saying
24 there is a sharp line between the two, and there are many
25 industries in which the specification in fact becomes the

1 standard, and so just I agree with what you're saying.

2 On the other hand, this issue of timing and who
3 decides, unless government does it, normally we allow
4 private parties to do it.

5 The real question is is it subject to opening
6 up, or is it closing?

7 The subject of opening up, I don't think we
8 have much trouble with.

9 If it's a closure, then we have got some
10 concerns.

11 MR. KATZ: And in response to that point, I
12 think you have hit it right on the head, and that is that
13 if we were to get together with MasterCard, American
14 Express, Discover, Designers Card, Carte Blanche, to come
15 up with a standard for security transactions, I can
16 assure you I wouldn't be here today.

17 I probably would be sitting in meetings that
18 would go on ad infinitum to come up with that
19 specification.

20 We have to agree on it. That could take us six
21 months, that people have different ideas. It could take
22 a year. It could take two years.

23 We had to make a decision. Frankly, I'm
24 talking as a business person now.

25 We had to make a decision did we want to slow

1 down the process?

2 Electronic commerce is happening as we sit here
3 today in a very insecure mode. It is subject to big
4 fraud, big-time fraud.

5 It's subject to -- well, we read about it,
6 about hackers coming in and ripping off credit card
7 numbers.

8 It is a very dangerous situation today. The
9 Internet is dangerous to be used, in my opinion, but it's
10 being used. We can't stop people from using it, so what
11 we made a decision unilaterally is that we want to move
12 quickly to get something in the marketplace to protect at
13 least the VISA product and the VISA system, and we
14 weren't willing to sit down with MasterCard and everybody
15 else to try and spend all of that time which could take
16 years to come up with a common standard, so we adopted
17 our specification then made it public because we spent
18 our money doing it. We made it publicly available,
19 answering your point that it's open, and said why don't
20 you adopt it? It's terrific.

21 There are other considerations -- politics, et
22 cetera, et cetera, but nevertheless, that's how we went,
23 and I think that's a very procompetitive way to go
24 because if it isn't the best, someone will go with
25 something else and bring it back and criticize ours, and

1 it's open for criticism and we will adjust it if it's not
2 the best.

3 We have no legal obligation to continue that
4 standard with Microsoft -- I should say that
5 specification. We can change it at any time.

6 That's our -- a unilateral act, so I think it's
7 the best way to move this process ahead, in my opinion,
8 so we are probably a year ahead of where we would have
9 been if we had got the industry together to try and
10 figure out what this would be, because I don't think we
11 even could have understood it without the help of a
12 Microsoft or without the help of an IBM or somebody who
13 understands such things as encryption technology, who
14 understands client, client and server technology, who
15 understands how it has to be integrated into the
16 operating systems and into the software -- should it be
17 on the hard disk?

18 We don't have that kind of expertise, so we
19 needed to form a joint venture with someone with the
20 expertise to come up with something to protect a VISA
21 brand and VISA product.

22 PROFESSOR GELLHORN: You can take your very
23 example -- I don't want to extend this -- and say just
24 the opposite could occur.

25 Take, for example, the situation of electronic

1 data processing, of insurance claims by doctors.

2 It's a market in which there's relatively
3 modest computer innovation. I mean 80, 85, 90 percent of
4 the claims are filed not electronically.

5 Well, the question is does one big company go
6 in with the largest insurer out there and set up a
7 process, put it up in all the doctors' offices, and they
8 can thereby it seems to me have enormous effect on other
9 insurance companies.

10 In many states, there is one or two companies
11 that have much of the insurance business. Do they align
12 themselves with one of the two or three larger electronic
13 companies and set up their own architecture, or does the
14 industry get together to try to work out a standard so
15 that it's compatible for everybody?

16 I don't have the answer to that. I don't mean
17 to suggest that I have the answer for it, but what I
18 think I'm trying to do is give an illustration of which
19 the individual approach that you're suggesting may not
20 work or might slow down technology, and that's, of
21 course, where standard setting and the Department of
22 Commerce first got involved in the early '30s and late
23 '20s under then Secretary of Commerce Hoover. One of his
24 great contributions was that kind of standard setting,
25 and it is, of course, a very difficult process when

1 private individuals are involved.

2 MR. KATZ: Can I make one comment? I'm
3 probably talking too much, but in the case of take the,
4 what you're talking about, medical electronic, medical
5 clearings and settlements -- there's lots of competition
6 going on and people looking at it.

7 We're looking at it. Electronic companies are
8 looking at it. MasterCard is looking at it. We're all
9 competing with different technologies and trying to
10 figure it out.

11 I can assure you, though, that I don't think
12 what you say will be a problem because I'm a doctor. I
13 am not going to stand for having to deal with just one
14 payment product.

15 I need to have it all compatible, so while we
16 push ahead, and we are ahead, so we at least get it
17 started, it takes the consumer demand will force the
18 adoption of interoperability, and the interoperability
19 means that the platform has to be interoperable, but
20 there may be lots of bells and whistles which makes my
21 platform superior to their platform, but we have a common
22 interoperable thing, whether it be the terminal, whether
23 it be the software, that we clear between each other, so
24 I'm a little concerned frankly about sitting down for the
25 industry and trying to figure it all out while the

1 doctors are sitting there, the patients are sitting there
2 waiting for us to come to agreement, and there isn't the
3 impetus -- I'm a real believer that you need impetus of
4 competition to get things done quickly, and then work out
5 -- once you've got the problem, work it out, but trying
6 to in front avoid these problems just slows down the
7 economy, slows down consumer welfare in my view.

8 That's just a personal view.

9 MS. VALENTINE: Can I just ask one last quick
10 question on the government adoption of the standards?

11 I should look at Sessions before I ask the
12 question probably, but were there any state action claims
13 made?

14 Can people, I mean could you try to approach
15 this through a Ticor or Burget process, you know, as part
16 of the active supervision prong of state action doctrine
17 that a state should be taking a look at or being
18 responsible for the state process or the standard that is
19 adopted??

20 PROFESSOR GELLHORN: As Judge Conti analyzed
21 the situation, and I claim some blame on this because he
22 and I are co-authors many years, 20 years ago of an
23 article somewhat in this area and I let him look at it
24 from a First Amendment standpoint and didn't force him to
25 look at it from an antitrust standpoint.

1 Nonetheless the way he looked at it did not
2 address the issue of state action because the issue was,
3 instead was the injury to the plaintiffs caused by the
4 defendant's adoption of the standard, or rather by the
5 fact that the government adopted the standard, and once
6 the government adopted the standard, he put it within the
7 Noerr-Pennington framework, and if you go, for example,
8 to the Justice Department or to the Bureau of Competition
9 in the FTC, both of them have at least told me in matters
10 that they follow the Sessions ruling, so they're giving a
11 rather broad immunity in my view to conduct that was not
12 encompassed within the concept of Noerr-Pennington of
13 appeals to government.

14 This is rather government adoptions, and I
15 think you raise a very interesting point I hadn't thought
16 about -- why can't one use the state action cases and say
17 well, where is the active supervision? Haven't we
18 extended this too far?

19 The real problem it seems to me comes in part
20 from Justice Scalia's opinion in Omni where he says no,
21 there is no conspiracy exception to Parker versus Brown,
22 and later cases he said that as a matter of first
23 impression, I would not have adopted Parker versus Brown,
24 but it is there. I'm stuck with it, and again, all we're
25 illustrating is antitrust doctrine here.

1 It's not a straight line. In fact it's not
2 even a wiggly line. It is inconsistent, and as a
3 consequence, it sort of bites us in the tail every now
4 and then and we come up with results that are
5 counterproductive, and you get this enormous uncertainty
6 that those operating in the front lines of the business
7 such as Mr. Katz say that we don't do things that are
8 innovative because of the fear, and that's where I would
9 urge the Commission to play an enormous role.

10 MS. VALENTINE: Thanks.

11 COMMISSIONER STAREK: Well, thank you very
12 much.

13 We could go on for quite a while on this topic.
14 It's fascinating, and I deeply appreciate all of you
15 coming and offering your thoughts and sharing your views
16 with us. It has been most helpful. You have excellent
17 suggestions. We thank you again.

18 So I guess we stand in recess.

19 (Whereupon, at 12:15 p.m., the proceedings were
20 recessed, to reconvene at 1:30 p.m. the same day.)

21 //

22 //

23 //

24 //

25 //

1 also has served as a Special Assistant to the FTC Bureau
2 of Competition, and has practiced law as a litigator in
3 San Francisco.

4 Professor Jorde obviously specializes in
5 antitrust, intellectual property, and civil procedure,
6 and he has published extensively and has testified in
7 these areas.

8 He also is co-editor of "Antitrust Innovation
9 and Competitiveness," and co-author of two new case books
10 on intellectual property and legal protection for
11 computer technology.

12 Professor Jorde, thank you for coming all this
13 way to be with us.

14 We certainly appreciate it.

15 PROFESSOR JORDE: Thank you especially for the
16 opportunity to participate today.

17 It goes without saying the topic areas that the
18 Commission is focusing on are extremely important, and I
19 think that the breadth of the topics being covered under
20 the general topic areas of global competition and
21 innovation is extremely impressive, and it's our thanks
22 from a speaker's point of view as well for the
23 opportunity to be here and to participate in an event
24 like this.

25 My own remarks are going to focus on the

1 relationship of antitrust policy and antitrust
2 enforcement efforts with cooperation among competitors
3 particularly, and especially when the cooperation among
4 competitors is focused on the creation of new products
5 and processes, namely, innovation and the
6 commercialization of innovation.

7 It's clear today and it is certainly clear from
8 the enforcement efforts of this Commission and the
9 Department of Justice that modern antitrust law
10 recognizes that competitor agreements can create
11 efficiencies and new markets, and they can certainly
12 advance other procompetitive benefits, and because of
13 these procompetitive justifications for cooperative
14 arrangements, the agencies and the courts have reached
15 the conclusion quite appropriately that such agreements
16 ought to be looked at under rule of reason analysis, and
17 one of the things I would like to focus on a little bit
18 later is the reason, rule of reason analysis itself and
19 why it ought to be part of that kind of analysis on the
20 part of the agencies and courts, but I especially want to
21 focus on cooperative arrangements among competitors
22 designed to create new innovations or to commercialize
23 innovation because I think these types of agreements
24 require a special consideration and special concern when
25 they are being evaluated by the agencies.

1 They ought to have that special concern because
2 the economic welfare that flows to society from
3 innovation is clear, and I think there is general
4 agreement that the societal gains from innovation and the
5 commercialization of technology are enormous, and indeed
6 they quite outweigh allocative efficiency gains that are
7 sometimes the focus of more static antitrust analysis.

8 The focus of traditional antitrust has
9 oftentimes been more short-run oriented, but again, I
10 think we see over the last certainly five years and maybe
11 the last decade a real move on the part of the government
12 agencies to be shifting attention at least in equal scope
13 to dynamic kinds of consideration and a clear
14 appreciation on the part of the agencies that those
15 dynamic efficiencies are critical for the advancement of
16 societal good.

17 One of the things that I think is important to
18 realize is that often competitors in a modern age today
19 in a technological setting where technologies are
20 changing rapidly may see reasons to get together one with
21 the other to advance innovation and to commercialize
22 technology, and those benefits may flow more in a future
23 timeframe and in a dynamic setting than one might see in
24 the very near term, and it seems to me that in order to
25 avoid hindering the progress that comes from

1 technological innovation and change, antitrust needs to
2 be vigilant that it looks into that forward context to a
3 careful evaluation of those benefits that may come down
4 on stream a little bit later, and although it's easy to
5 say this, I do want to emphasize I think it's right as
6 well as it's easy to say, and that is it seems to me that
7 when we get into the difficult balancing questions of
8 comparing perhaps shortrun inefficiencies or short-run
9 gains and market power against dynamic efficiencies,
10 there is a tradeoff problem that exists, and given that
11 the burden of proof, from a lawyer's perspective, here
12 rests with an agency and stopping an action or rests with
13 a private party in opposing a particular agreement, it
14 seems that when we're not clear, and when evidence isn't
15 clear against the kind of efficiency arguments that might
16 be made, we probably want to err in favor of dynamic
17 efficiency in order to make sure that, that the benefits
18 to society are capable of being sought.

19 There are a number of reasons that firms might
20 wish to get together to collaborate to advance
21 innovation, and let me just go through a few of those.

22 The obvious ones that come to mind first are
23 economies of scale and scope.

24 These are fairly well known. It's also
25 important to minimize risk and avoid duplication,

1 particularly as a good deal of technological advancement
2 today is costly and very fast moving, and in order to
3 stay abreast of it, it might make sense for firms to get
4 together.

5 In addition, there may be reasons of efficient
6 technology transfer or commercialization for competitors
7 to get together.

8 It's fairly well understood that much of
9 innovation today is not serial, that is, it doesn't
10 follow lockstep A, B, C, D from R&D through prototype to
11 manufacturing and finally to sales.

12 Rather a lot of innovation today takes place
13 more in what some economists and engineers have termed a
14 kind of simultaneous nature where it's important to be
15 able to stay in touch with many aspects of the innovation
16 process, including all the way forward to customers,
17 because the pace of change makes it important that you
18 not only come out with the best first generation product,
19 but that you be there right away for the second and third
20 generations because if you aren't, somebody else will be,
21 and it may be that a particular firm has some aspects,
22 some parts of the puzzle for that simultaneous venture of
23 innovation, and that they will be more efficient if they
24 hook up with other firms who have other complementary or
25 co-specialized capabilities, so it's not surprising that

1 we may see competitors linking up in a horizontal fashion
2 to gain maximum efficiency.

3 Another reason, of course, firms might wish to
4 get together to cooperate is to better appropriate the
5 returns of innovation.

6 There are well-known free rider problems and
7 public good characteristics of innovation that make it
8 difficult sometimes to capture the full benefits of
9 innovation.

10 Well, sometimes one might say well, what's the
11 matter with intellectual property for taking care of
12 that?

13 After all, we have patents, trade secrets,
14 copyrights and the like.

15 One of the problems is that in many industries,
16 intellectual property on its own is not capable of
17 protecting a vast amount of innovation and
18 innovation-type activities, and in that case, it is
19 easier to have public good or free rider kinds of
20 problems, all of which may drive firms to get together to
21 try to encompass the entire effort of innovation in order
22 to appropriate the returns to themselves.

23 We want that sort of appropriation to go on, of
24 course, to give proper incentive to the innovating
25 parties and to make sure that we have incentives in

1 place, so private contracting can often fill that gap.

2 The forms of cooperation that might take place
3 involve mergers, joint ventures, strategic alliances, and
4 contracts.

5 There has been a tendency sometimes I think in
6 antitrust enforcement and by courts to start to make
7 distinctions in those categories.

8 We look at mergers one way. We look at joint
9 ventures another, and yet another for contracts, and I
10 would argue that we ought to really try hard to see these
11 as alternative forms of integration where we're not
12 preferring one over the other.

13 At a minimum, it seems to me that contractual
14 arrangements and the restraints that go by contract ought
15 to be treated no less well than full integration by
16 merger.

17 After all, after contract, the parties remain
18 still free to, to have more flexibility among themselves
19 than they would with a full merger.

20 I think treating these forms the same can be
21 done if we pay attention to a structured rule of reason
22 analysis, and I would like to address that at least in
23 brief.

24 I have certainly tried my best to do that in
25 more lengthy articles, and I have done about, certainly

1 as well as I can.

2 Others can improve on mine for sure, but I'll
3 just try to summarize here.

4 The first point, of course, is the rule of
5 reason analysis occurs and not per se rules when cases
6 can be made that what integration is about is to promote
7 innovation or commercialize innovation.

8 As a first step in a rule of reason analysis,
9 it's very important that markets be defined and that
10 market power be assessed.

11 In the absence of market power, it's going to
12 be difficult to argue credibly as an enforcement agency
13 that there are likely anticompetitive effects that follow
14 with the arrangement, so we ought to be clear about
15 looking for market power and defining markets.

16 I know you have already focused in a prior
17 couple of days on the, on the complexities, indeed
18 difficulties of defining markets in the area of
19 innovation.

20 We're not going to try to repeat that here I'm
21 sure, but I do want to add a voice in that area that to
22 make sure that when we're thinking about market
23 definition, that we pay attention to the dynamic
24 performance based side of that to be sure that we're
25 capturing markets in the way that they really unfold in

1 the area of innovation.

2 The guidelines sort of 5 percent test focusing
3 on price probably needs to be elaborated. It's a good
4 starting point, but it's probably important to move to
5 performance-based kinds of criteria as well when we're
6 thinking about products in areas of technology.

7 There are also difficulties in defining
8 know-how markets, and beyond that, innovation markets,
9 and I don't want to tread back to those areas, either,
10 except to say that paying attention is very, very
11 important for getting the market definition correct
12 because I think once we get markets defined properly, we
13 can then feel more comfortable about taking a next
14 important step that I certainly urge the Commission and
15 courts to do, and that is to recognize a safe harbor if
16 you will that would exist for cooperating firms who have
17 less than 20, 25 percent market share.

18 That could be translated into Herfindahl index
19 figures as well, and I have talked about that in more
20 detail in my writings.

21 The intellectual property guidelines for
22 intellectual property licensing recognize the value of
23 the safe harbor.

24 Guidelines concerning health care have
25 recognized safe harbors.

1 Certain courts have recognized safe harbors. I
2 think we know why, how to go about that process, and I
3 just think it's important to extend it with some clarity
4 any time we're dealing with cooperative arrangements
5 involving innovation and the development of technology.

6 One other value of having a safe harbor in
7 place is that it makes clearer that the form will not
8 make a difference, that is, we will start to treat
9 cooperative contractual arrangements very much like we
10 treat merging parties under the current merger
11 guidelines.

12 Now the difficulties, of course, occur once a
13 party continues to want to cooperate in some contractual
14 arrangement and there are horizontal parties involved,
15 and yet they are outside of or above a safe harbor
16 analysis.

17 Now at this point, it seems to me an agency has
18 done enough when it has shown that real market power
19 concerns exist that are above a safe harbor level.

20 At that point, I think a burden realistically
21 ought to shift to the cooperating parties to demonstrate
22 the reasons why they have gotten together as horizontal
23 competitors to advance innovation or to help promote
24 commercialization of innovation, and what I would urge on
25 the Commission, and again, there is certainly lots of

1 evidence the Commission already is doing this, so this is
2 nothing new, but to continue the careful attention that's
3 being paid now to efficiency claims and efficiency
4 arguments that are dynamic in nature and are not short
5 run.

6 I want to be clear in my own presentation that
7 those of us who have been working before the Department
8 of Justice and with the Federal Trade Commission know
9 this is all going on.

10 A clearer exposition of this, appropriate cases
11 may be helpful to the bar in general, but let me just
12 enumerate some of the dynamic efficiencies that I would
13 expect defendants to speak about, and then it would be up
14 to the Commission and its staff on a case-by-case basis
15 to find out where there is a factual basis.

16 Obviously just the mere assertion of some kind
17 of dynamic efficiency can't carry the day, but one would
18 expect to hear the following kinds of arguments I think -
19 - that the innovation sought by a cooperative arrangement
20 will, if achieved, help the firms capture value in
21 situations where intellectual property for this
22 particular product or particular technology is somewhat
23 weak, that is, the regime of the intellectual property is
24 not as protective as it might otherwise be, so the
25 parties are getting together to appropriate returns for

1 innovation.

2 Another justification one might see is that the
3 arrangement is necessary because the character or
4 magnitude of the cooperative arrangement is necessary to
5 achieve economies of scale and scope.

6 It may also be the case that successful
7 innovation is sought by the arrangement and that it will
8 be, it will allow the parties to bring this together and
9 that the restraints are necessary for capturing value.

10 The arrangement may also compete in market or
11 markets -- or markets plural, that are characterized by
12 rapid technological change, which may be another reason
13 for sharing resources to get products to market quickly.

14 Finally, I would expect to hear arguments
15 occasionally that the cooperative arrangement is part of
16 an effort that in some way one might think of as an
17 effective type of intra, interbrand I should say
18 competition, that is, we're getting together almost
19 intrabrand to compete effectively head to head with other
20 ways or other groups who are doing the same thing.

21 The difficulty, of course, comes when there are
22 strong efficiency claims and there are large market
23 shares, assuming that markets have been correctly
24 defined.

25 There's no escaping the hard judgment calls and

1 the qualitative judgments that have got to come from
2 staff and the Commission. There is no escaping that at
3 all.

4 There are two cautions, though, that I would
5 like to toss in to the Commission to think about because
6 now that we're going to have to balance, sometimes there
7 is a reference back to less drastic means analysis, and
8 sometimes, especially more recently, I think there has
9 been a, a kind of feeling that we want to make sure that
10 there are a multiplicity of avenues of innovation, and
11 that either one of those or both in combination may kick
12 the Commission in the direction of opposing the activity.

13 I want to suggest caution on both those for the
14 following reasons -- we obviously want to avoid with
15 hindsight looking back at what the business arrangement
16 was and kind of saying well, you could have done that in
17 an easier way that wouldn't have had the same restraints
18 or wouldn't have had the same number of participants
19 involved.

20 It seems to me if we're going to do that kind
21 of analysis, we need to make sure that at the time, that
22 is then when the arrangement is being put together, at
23 the time, the alternative that the Commission is
24 suggesting was obvious and it would have been
25 substantially less restrictive.

1 In those kinds of cases, then it may be fair
2 for a trier of fact to say that the current arrangement
3 is an unreasonable restraint of trade, but one needs to
4 be careful about the timeframe when the evaluation is
5 being made.

6 On the other point about the reduction in paths
7 of innovation, again we're assuming the case is above
8 safe harbors. Below safe harbors, we don't have this,
9 this balancing problem.

10 It's not at all clear and the empirical
11 evidence is not clear that reductions in R&D are
12 necessarily going to lead to less innovation or put
13 differently, that we need somehow to have the maximum
14 number of paths of innovation available in order to
15 create efficiencies and to make sure that the maximum
16 amount of innovation occurs.

17 Given that the government has the burden of
18 proof in halting an agency or private plaintiff in the
19 same, I think we would want strong evidence on either one
20 of these cases of less drastic means analysis or strong
21 evidence that the chance of alternative pathways here was
22 fairly clearly going to alter the kinds of innovation
23 that we would expect before that would kick in as the
24 means the government would use to halt the particular
25 cooperative arrangement.

1 Finally, I think there is no escaping that
2 there is a type of sliding scale that's going to go on
3 between market power and the efficiency claims involved,
4 and that again has been rather historic and traditional,
5 too.

6 Well, this concludes my remarks on rule of
7 reason analysis.

8 One last point I would like to make, but it
9 really doesn't apply to the Commission so much as to
10 businesses who may be following the remarks and may be
11 looking at the proceedings in general here at the FTC --
12 I think far too little attention has been paid by
13 business to registering cooperative ventures under the
14 amended now National Cooperative Production Amendments of
15 1993.

16 I think there are significant gains that could
17 come from participating in that registration kind of
18 process and letting the FTC and DOJ know about the
19 arrangement.

20 It guarantees rule of reason analysis. It
21 limits damages to single damages, and all this would seem
22 to me to go a long way toward getting some of the
23 security that business desires in these areas, and yet
24 I'm afraid this is, you know, an area that's rather
25 underutilized today.

1 Well, thank you very much for the time to make
2 these remarks.

3 COMMISSIONER STEIGER: For the Q and A session
4 that comes later, I wondered if you could make a note and
5 address your last point in a little more detail?

6 We have heard that there are serious
7 shortcomings in the joint venture development of
8 legislation front.

9 We know of one being claimed by our allies
10 abroad who say that they have restriction on their
11 participation, limitation on the placement of it, joint
12 ventures should be simply done away with.

13 I am not referring to that limitation, but if
14 you have knowledge of something that is missing and might
15 indeed be causing businesses not to utilize this, I would
16 appreciate your mentioning it later.

17 PROFESSOR JORDE: Okay.

18 COMMISSIONER STAREK: Well, thank you very
19 much. That was very stimulating, very interesting.

20 I think the way that it has been suggested that
21 we proceed this afternoon is the way we have been
22 proceeding most of the previous afternoons, which is to
23 hear from our witnesses and then engage in a question and
24 answer session and then an exchange between the
25 participants and the representatives from the Commission,

1 so unless there is some burning question or something, I
2 think we will go on to Professor Ordoover.

3 Janusz is professor of economics at New York
4 University, and he is also advisor to the World Bank on
5 privatization and regulation of infrastructure
6 industries, and is affiliated with Law and Economics
7 Consulting Group in Berkeley, California.

8 In the past, Professor Ordoover has served as
9 Deputy Assistant Attorney General for Economics of the
10 Antitrust Division of the department, and he was also
11 Special Consultant on Trade and Competition Policy to the
12 OECD, and an advisor to the post-communist governments of
13 Poland, Russia and Hungary.

14 In addition, Professor Ordoover was one of the
15 founders of Consultants in Industry Economics, Inc.

16 He has authored and co-authored numerous
17 articles on many aspects of antitrust and regulation.

18 Professor Ordoover, thank you for coming.

19 PROFESSOR ORDOVER: Thank you very much. I am
20 greatly honored by this invitation partly because the
21 Omni high tech case that I was ever deeply involved in I
22 lost in front of the Commission, the PPG, so I will try
23 to relitigate this case this afternoon in light of the
24 new learning!

25 Well, I think obviously the subject matter for

1 today's hearings is more than challenging partly because
2 economics is not really up to snuff to ask all the deep
3 questions that the staff and the commissioners have come
4 up with over these months to pose to the academic
5 community and to others.

6 If I were to answer very quickly the two
7 questions posed, the first -- how should antitrust treat
8 dynamic/innovation efficiencies in mergers and joint
9 ventures -- my answer could be pretty much the way you
10 are doing right now, but just take it easy on the
11 innovation markets. I'll come back to that a little
12 later on.

13 The second -- are such efficiencies peculiarly
14 valuable or more subject to imitation by others -- the
15 answer is it all depends, and depends on several factors,
16 and let me quickly rattle them off so that we can move
17 on.

18 I presume it is reasonably well known that a
19 great deal of R&D is devoted not to development of new
20 technologies or the development of new production
21 processes, but really to modifying the available set of
22 commodities that people choose from.

23 For example, I found out that Sony on the
24 average tries out somewhere between 500 and a thousand
25 new products every year, most of which do not make it to

1 the shelf, and if you ever have gone to the new food show
2 that is often held in New York which displays all the
3 products that are going to be available to put on
4 supermarket shelves, you will realize that only about one
5 thousandth of 1 percent is ever judged to be edible
6 enough to be sold, so there is a huge amount of issues in
7 front of us, and that is whether or not the R&D that
8 we're so much worried about is all that valuable in the
9 sense that it truly enhances the scope of choices facing
10 the consumers, or is it basically designed to divert
11 whatever low rent that may remain in the existing
12 products from one set of producers to another, and I
13 think there's a great deal of economic literature that I
14 presume Professor Scherer may have already talked about -
15 - if not, he will certainly talk about it -- that focuses
16 on the fact that in monopolistically competitive
17 environments in which various barriers to entry into the
18 provision of new products are relatively low, there is a
19 potential tendency to in fact overfill the product's
20 space with new products in order to still divert or to
21 hang on to the existing rents, whatever they might be, so
22 when one hears the talk about R&D and how valuable it is,
23 I presume the commenters really focus on these types of
24 R&D that at least expose, turn out to substantially
25 expand the choice from which consumers can pick or at

1 least or maybe even more valuably, reduce production
2 costs, speed up production technologies, in fact, enable
3 us to release resources to the economy that can be used
4 elsewhere but which also enable us to produce the next
5 generation of products, and I think that's the one area
6 of R&D which frequently has been perhaps been paid
7 inadequate attention to, so I would suggest that we
8 cannot argue I don't think ex cathedra somehow these
9 efficiencies are or these innovations are more valuable
10 than others or that they are something that is
11 intrinsically inherently valuable that should be
12 protected.

13 I think the answer that I always give to myself
14 when I think about the R&D is that the valuable parts of
15 it are those that in the aggregate substantially
16 contribute to the enhancement of productive efficiency
17 and substantially enhance the scope of choices facing
18 consumers. As I said, not all of it is what goes on.

19 Now this is not to say, of course, that many of
20 these projects which turn out to be highly
21 uncollaborative in the end are wasted in that sense.

22 Obviously people search for answers, and many
23 people come up with wrong answers to often obvious
24 questions, but the point again is that from our
25 standpoint, the Commission and I think the Department of

1 Justice have become increasingly well attuned how to
2 analyze antitrust problems in so-called high technology
3 industries, and I guess from my perspective, the
4 definition of such an entry is the one in which at least
5 the predominant mode of competition over the medium term
6 is, of course, product innovation and cost innovation --
7 and cost reduction.

8 Now having said all that, what I would like to
9 suggest to you is a few points that may or may not
10 stimulate us during the discussion period. I prefer to
11 hear others than myself, frankly.

12 No. 1, I would like to take you back some 30
13 years or 40 years ago and recall that this was the period
14 of U.S. economic dominance and was a period of
15 spectacular economic growth in the United States, yet
16 surprisingly this was also the period during which the
17 antitrust enforcement was most stringent and least
18 attuned to the issue of research and development and
19 dynamic competition and all of these.

20 Conceivably, markets and industries during that
21 period 20, 30 years ago were less driven by high
22 technology concerns than they are right now, but it
23 suggests to me that in fact our current set of concerns
24 do not necessarily come because somehow antitrust has
25 become a hamper on what's going on, but because all of a

1 sudden, the United States' economy is facing competition
2 from abroad, and many of the discussions about the need
3 for NCRA, many of the discussions about the need to
4 tighten up our patent enforcement and so on really are
5 not driven by the basic considerations that the American
6 economy has slowed down to a halt, but also, but
7 primarily by the fact that the American economy has been
8 invaded by products from abroad which are taking away
9 market share from the American dinosaurs, and that often
10 happens.

11 This is the process of competition that
12 everybody talks about, and I will say something about
13 that a little bit later on, but the point No. 1, and No.
14 2 that stay in my mind is that antitrust, however
15 important it may be, is really not necessarily the
16 primary driver behind or primary inhibitor of the
17 economic forces that are unleashed nowadays in the global
18 economy.

19 I think what happens is that the application of
20 antitrust to a particular set of companies when
21 inappropriate is very painful, so that the pains are
22 highly concentrated, but whether or not the effect of
23 such a mistake sends shivers through the economic
24 business community I am less certain, although without
25 turning to the left too much, I would suggest that we

1 came close in certain circumstances in trying to
2 influence the thinking over the long term in ways that
3 might have been adverse.

4 Now the point No. 3, and that is if you're
5 looking at NCRA, which was at least hailed as the first
6 step in more reasonable joint ventures, especially recent
7 joint ventures, there are interesting things about it
8 that I will say in two words very quickly.

9 One is that participation in recent joint
10 ventures is highly concentrated in a handful of firms.

11 Even though there are a large number of firms
12 that participate, there are thousands of firms in fact if
13 you go out to, if you aggregate it all up, it turns out
14 that something like 90 percent of all the firms that
15 participate participate in no more than five joint
16 ventures having registered with the NCRA, and in fact
17 somewhere around 200 and 250 firms are the ones that
18 engage in most of the recent joint venture type of
19 technology that NCRA covers.

20 That raises an interesting, however, question
21 to which I don't have any answers to, but I am slowly
22 working on them, as is Professor Von North from George
23 Washington University, in trying to understand why is it
24 that it is so far a handful of firms find the NCRA to be
25 a valuable vehicle for their -- at least valuable for

1 shielding themselves from potential antitrust litigation?

2 I have no answer to that. It strikes me,
3 however, that again, there is absolutely no evidence one
4 way or the other that the industries which predominate
5 such as telecommunication are the ones in which
6 appropriation, problems of appropriability, spillover
7 funding, are the ones that are really critical, so we
8 find that 25 percent of NCRA registered joint ventures
9 come from telecommunications -- again, very little
10 explanation as to why. One would like to know.

11 We know that another 20 percent comes from
12 energy and environment where generic research is very
13 critical and in which appropriability is very difficult,
14 spillovers being extremely high, so this is a bit of a
15 puzzle.

16 The good news for Tom Jorde and myself to one
17 extent is what we're seeing nowadays on the NCRA
18 registration front is a substantial number of joint
19 ventures which are truly of the vertical sort, and that
20 is of the sort that do put together indeed competencies
21 that are quite complementary along the production
22 channel.

23 What is surprising indeed is that large
24 participation of joint ventures from the service sector
25 despite the fact that it produces somewhere around 30

1 percent of the U.S. gross product spends only about 9.4
2 percent on R&D.

3 What we're seeing indeed in this case is
4 enhanced participation by service-oriented firms in the
5 R&D effort of people who actually supply them the high
6 technology products that these service industries need.

7 That is very important because it does support
8 the thesis which is that what's key in antitrust
9 treatment of these joint ventures is the recognition that
10 technological development of the R&D process are not
11 indeed as linear as we initially suspected or suggested,
12 but is a much more complicated, much more complex,
13 multifaceted and multilayered process that requires
14 extensive number of abilities or competencies to be put
15 together in a way that ultimately leads to something that
16 consumers will value.

17 On the negative side, I would point out that
18 there is, there has been now a downturn in the number of
19 R&D joint ventures registered under NCRA, and there has
20 been also a marked number of firms exiting from the
21 registered joint venture.

22 Now is it a temporary phenomenon, or is it
23 something indicative of the fact that joint ventures,
24 research and otherwise, to a large extent, to some extent
25 are a product of management gurus who in the '80s sold

1 these ventures to the senior management as being
2 solutions to their many competitive problems.

3 Obviously many CEOs are beholden to management
4 gurus as is the FTC or the Department of Justice to some
5 friends and economists such as Cornout, Bertrand. Of
6 course we have moved beyond that Frenchman now. We're
7 off to a dead German Schumpeter, and let me say a word
8 about that because it is quite clear Schumpeter seems to
9 be the fountainhead on which much of the current analysis
10 is built, and it is very easy to misunderstand what
11 exactly Schumpeter had in mind, and maybe that will be my
12 final thought because we're going to run out of time.

13 What really Schumpeter had in mind was the
14 process of competition, and Schumpeter I think is
15 misunderstood when he, when people believe that what he
16 argued for was somehow the presence of monopoly, that
17 market power was something that was driving R&D and
18 economic progress.

19 I don't believe that to be true for one minute.
20 In fact I looked at some of his writings prior to coming,
21 and it strikes me that what he is saying is that it's the
22 race to be the dominant firm for however a fleeting
23 period of time that is propelling R&D, and indeed what
24 Schumpeter was always advocating, was always of the view
25 in my mind, that it's the freedom of entry into the R&D

1 process, it's the freedom of being a competitor with the
2 reward that it can bring if you are successful.

3 That is something that a capitalist society
4 should cherish and what capital society is good at
5 promoting, and his revulsion to, to the communist
6 regimentation, he and people like Von Mises and Hayek
7 argued that it's the freedom of competition that is the
8 driving force, and I believe that if I were to close my
9 remarks with how should antitrust treat
10 dynamic/innovation efficiencies in mergers and joint
11 ventures, I would say it should treat them in the way
12 that (A), does not foreclose possibilities for others to
13 compete in the next generation of R&D, the next
14 generation of products, and the next generation of
15 technologies, and also that (B) it does not destroy the
16 chances for the current firms to earn potentially
17 supercompetitive rewards from successful innovation, so
18 there is a careful and delicate balancing that has to
19 take place.

20 Thank you very much.

21 COMMISSIONER STAREK: Well, thank you for that
22 most enlightening and quite interesting testimony. We
23 appreciate it.

24 COMMISSIONER STEIGER: I must say if you have
25 to deal with Schumpeter, it helps if you read German.

1 Since I don't, I can't argue with your
2 revitalization of Schumpeterian theory.

3 PROFESSOR ORDOVER: I consider the translations
4 are quite good.

5 MR. BAKER: Polish translations particularly!

6 PROFESSOR ORDOVER: That's especially
7 fantastic, state of the art!

8 COMMISSIONER STAREK: Well, thank you. Our
9 next witness this afternoon is Roger Noll, and he is the
10 Morris M. Doyle Professor of Public Policy in the
11 Department of Economics at Stanford University.

12 He is also a director, the Director of the
13 Public Policy Program, and the Director of the Program on
14 Regulatory Policy in the Center for Economic Policy
15 Research.

16 In the past, he has served as Associate Dean
17 for Social Sciences in the School of Humanities and
18 Sciences.

19 Prior to joining the Stanford faculty until
20 1984, Professor Noll was the Chairman of the Division of
21 Humanities and Social Sciences and Institute Professor of
22 Social science at Cal Tech, and he served on the staff of
23 the Brookings Institution and the President's Council on
24 Economic Advisors.

25 Professor Noll is the author of seventeen books

1 and more than a hundred articles, and his research
2 interests include, among other things, government
3 regulation of business and public policies regarding
4 research and development.

5 Professor Noll, thank you for joining us. Thank
6 you for making the long trip. We appreciate it very
7 much.

8 PROFESSOR NOLL: Actually it was a very short
9 trip. I'm on sabbatical at the Brookings Institution.

10 COMMISSIONER STAREK: Well, I didn't know that.

11 PROFESSOR NOLL: In any case, the spirit is
12 here. I would have come anyway.

13 Thank you very much for giving me the
14 opportunity to be here.

15 It's always disadvantageous to be the second
16 economist because even though off by ourselves,
17 economists fight like cats and dogs, inevitably when it
18 comes to appearing in positions, hearings such as this,
19 we end up all saying the same thing, and of course Janusz
20 has taken away about 75 percent of my notes, but let me,
21 let me proceed. I will try not to duplicate to the best
22 of my ability.

23 The basic idea I think that we want to, we want
24 to consider here is whether -- is I think best capsulized
25 in the notion as a working principle if not something we

1 can actually implement of thinking of an R&D intensive
2 firm as a vertically integrated firm in two markets, one
3 of which would be R&D production and the other of which
4 would be final product production, and to see if that
5 gets us anywhere for antitrust analysis and for reviewing
6 the wisdom of limited joint ventures or mergers, and the
7 thing that makes this especially interesting is that in
8 most cases, either through history or indeed at a given
9 moment in time, in other kinds of questions pertaining to
10 vertical integration, we have the opportunity to observe
11 both integrated and non-integrated firms, and
12 unfortunately, in the case of the R&D business, that is
13 almost never true, that R&D intensive firms are almost
14 never separated from production, and that is to say, the
15 private sector undertakes more than 98 percent of its
16 research and development in-house.

17 And the reason for this, of course, has to do
18 with the difficulties of retaining intellectual property
19 rights and ideas with patent and copyright and trade
20 secret protection.

21 That's sort of the standard explanation for why
22 firms do this, but there is also a contracting reason why
23 firms do this, that is to say, because the nature of
24 research and development by definition is that one really
25 does not know the relationship between input and output.

1 Indeed one doesn't even know how to measure
2 outputs.

3 It is extraordinarily difficult to write a
4 contract whereby one organization obtains research and
5 development from another.

6 And the best evidence of that is the attempt
7 for the federal government to buy weapons system
8 development in the private sector.

9 The mechanism used by the federal government to
10 solve this contracting problem is an extraordinarily
11 complete and intrusive and very expensive auditing system
12 that not only audits things like costs, but audits things
13 like what people actually do in an extraordinarily
14 intensive way and ends up producing systems in which
15 overhead rates and indirect cost rates between private
16 for profit firms and the government exceed the direct
17 costs of actually undertaking the work, and so there is a
18 -- that we have this peculiar problem then which is,
19 which is, of course, just absolutely perfectly made for
20 economists since there is no danger that somebody will
21 come up with any facts that are going to disprove our
22 theories, which is we're trying to figure out in
23 principle how to think about two separate activities as
24 if they were two separate markets when in fact there is
25 virtually no credible market or useful market for one of

1 them.

2 Now that's sort of the first major idea that I
3 want to put forth.

4 My purpose here is to try to gain some purpose
5 and understanding about this.

6 The second major idea, however, that I want to
7 keep in the background, as I do this analysis, is that
8 antitrust analysis of the R&D component comes across in
9 much more vivid detail, the inherent contradictions of
10 public policy with respect to objectives, with respect to
11 research and development.

12 That is just an order of magnitude more
13 important than it is in conventional antitrust analysis,
14 and by this I mean the following -- for 30 years, since
15 Ollie Williamson wrote his article on efficiencies in his
16 antitrust defense, we have been aware of the fact that
17 there is, there are two major tensions in any kind of
18 analysis about competition.

19 The first major tension arises from the fact
20 that in order to give people -- which is the one that we
21 usually attend to, that's the one Tom was talking about -
22 - that in order to give people incentives to undertake
23 innovation, they have to be given at least some form of
24 property right that is not subject at least in the short
25 run to competition, and no matter what we do in this

1 regard, there is always going to be a second best issue
2 here, which is that we don't, unless we want to have a
3 system in which literally all the benefits of innovation
4 accrue to the innovator, which it had -- had it been true
5 all the way back through human history, we would have a
6 very tiny number of people who get all of GNP above what
7 is necessary for subsistence and everybody else was
8 living at subsistence -- if we don't want to have that
9 kind of a world, then there is always this tradeoff
10 between how much shall we sacrifice in innovative
11 activity by having something fall short of a complete
12 intellectual property right?

13 That's the standard way people think about it,
14 but there is a, there is a second equally intriguing
15 story here which is the difference between the way most
16 economists think about this problem and the way people
17 like the commissioners of the Federal Trade Commission
18 and most importantly, members of Congress think about it,
19 which is they don't think of antitrust as primarily an
20 efficiency issue.

21 They think of it as a consumer protection
22 issue, and this is a big difference.

23 Consider the following example -- it may be the
24 case in the Ollie Williamsonian sense that the merger of
25 two firms will in fact reduce costs, but simultaneously

1 if consumers are sufficiently insensitive to price
2 changes, it can also raise price, and an economist might
3 well decide that the cost reducing effects of the merger
4 are sufficiently great that they offset the harm to
5 consumers arising from higher prices, but in fact
6 antitrust law tells us that that isn't good enough, that
7 the -- and this is what Ollie's conclusion in his paper
8 was.

9 Now turning to the innovation side, what this
10 means, of course, is that it isn't sufficient to identify
11 certain kinds of economies of scale and scope and
12 avoidance of duplication that might arise.

13 One has to ask the question about the vertical
14 connection, whether in fact some sort of collaboration or
15 cooperation in the innovation market enable the
16 participants in it to be able to engage in more effective
17 either tacit or straightforward collusion in the
18 downstream market.

19 Now that's the -- this basically starts off
20 what I want to do, and I want to illustrate all these
21 issues first of all, in the fable of SEMATECH, and then
22 to go on with what the principles that we can adduce from
23 that fable and some other ones might be.

24 The essence of the idea in SEMATECH I think
25 brings forth a whole bunch of issues that come to bear

1 here.

2 The basic idea behind SEMATECH is one that
3 there are perfectly valid, legitimate reasons why it
4 might make sense for firms engaging in semiconductor
5 manufacturing to engage in general research and
6 development.

7 In particular, it had come to pass in the
8 semiconductor manufacturing industry that there was not
9 standardization across firms, and consequently, the
10 industry that produces equipment for semiconductor
11 manufacturing was sort of engaging in independent job
12 shopping for everyone, and there was some potentially
13 unclaimed benefit out there from engaging in some
14 standardization particularly in the semiconductor
15 equipment business.

16 It was also the case that as you can well
17 imagine, that in the semiconductor business, intellectual
18 property rights have a relatively short half life.

19 It is relatively easy to reverse engineer a
20 semiconductor device, and for all these reasons, we might
21 think for the appropriability reasons, for the
22 standardization reasons, and for avoidance of duplication
23 reasons, it would make sense for indeed such a joint
24 venture to come into existence.

25 Moreover, because of reverse engineering

1 possibilities and the inappropriability of invention in
2 this industry, it would make sense for government to
3 subsidize it to some degree.

4 The realities of SEMATECH, when it came into
5 existence, were that the industry -- that SEMATECH
6 immediately began to focus primarily on this upstream
7 problem, semiconductor equipment manufacturing business,
8 and of course the rules of SEMATECH handed down for it
9 were in the first instance, the participants in SEMATECH
10 were to be given an advantage in the R&D that they
11 produced, namely, they were to have a one-year headstart
12 on using any equipment that was developed for them, and
13 in addition, of course, they were, they were essentially
14 by virtue of subsidizing research and development in the
15 upstream industry, and basically exclusively dealing with
16 the firms they were subsidizing, a completely unavoidable
17 collaborator from the point of view of these
18 manufacturers.

19 Now as time progressed, two things happened,
20 and I don't want to pass judgment on that. That's not my
21 purpose. It's to illustrate the problems that arise, the
22 practical problems of implementing such things.

23 The first problem was, of course, that the
24 firm, the firms that manufacture semiconductor equipment
25 faced the following dilemma -- on the one hand, the U.S.

1 semiconductor industry was not sufficiently large in the
2 world market that each firm could actually expect to make
3 maximal profits or indeed in some cases even survive by
4 selling only to the members of SEMATECH, so the first
5 domain of controversy arose because these firms were not
6 allowed to sell to the non-SEMATECH members, most of whom
7 were actually foreign producers, so that was the first
8 basic form of controversy.

9 That led to pressure from the government and
10 eventually the rescission of the rule that gave the members
11 the head up -- the leg up.

12 That, of course, in turn reduced substantially
13 the incentive of member firms to engage in this
14 collaborative venture, and it basically is falling apart.

15 Now this isn't because it was necessarily a bad
16 idea. I don't want to say that.

17 It may very well have been a good idea, but the
18 key lesson that comes about from this it seems to me is
19 that going back to our lessons of the past, that some of
20 the people who are in the market, in this case, in the
21 market of selling to the semiconductor firms, regarded
22 themselves as harmed, and in particular, the nature of
23 the joint venture by virtue of not having an
24 instrumentality to take full advantage of the potential
25 for economies of scale in the upstream suppliers, meant

1 that they couldn't behave optimally, and the private for
2 profit, profit maximizing incentives for the participants
3 weren't sufficient to cause them to want to continue to
4 go forward if indeed the rule about exclusive dealing had
5 to be rescinded.

6 Now I -- that sort of illustrates a lot of the
7 problems of organizing joint ventures, so let me go back
8 now to principles about how we might think about
9 antitrust and joint venture rules in light of experiences
10 such as these.

11 All right. The basic rationale for why we
12 would allow mergers or joint ventures has to do with two
13 facts.

14 The first is the possibility of duplicative
15 innovative effort, so that we can reduce total R&D costs
16 to obtain a given cost objective or product improvement
17 objective by combining efforts, and the second has to do
18 with economies of scope, and this has to do with the,
19 essentially the following idea, that firms based on their
20 history have specialized expertise, so they will tend to
21 differ in where they are really good at coming up with
22 innovations.

23 To sort of think about how these innovations
24 come about, they may come about either in the process
25 line or the product line, as was described, but even more

1 than that, they will come about in components of the
2 product or components of the process line, and different
3 firms can have different talents and different parts, so
4 the economies of scope argument is in part let the firms
5 combine their advantages.

6 The second part of the economies of scope
7 argument is that somehow it is the case, and there are
8 lots of historical examples, that people who invent or
9 come up with new knowledge are not the ones who figure
10 out how to use it in the most productive fashion.

11 That is to say, it could often be the case that
12 a discovery in one industry or one firm is the basis for
13 a major product innovation or process innovation in
14 another firm or industry, and the discoverer is not even
15 aware of it, is not even aware of that potential use, and
16 of course the more broadly based the coalition that is
17 undertaking this R&D, the more likely that this is going
18 to come about.

19 Now what I would like to point out is that
20 neither one of these works by themselves. All right.

21 That is to say, first of all, duplication of
22 effort is not necessarily bad for the same reason as the
23 economies of scope argument is true, that is to say,
24 different research and development departments doing
25 exactly the same thing will draw different inferences

1 from exactly the same discovery, and the act of reducing
2 the degree of duplication in the industry may in fact
3 reduce innovative effort not because people aren't
4 discovering things, but because they are not drawing as
5 many inferences from them.

6 And again, one of the features of SEMATECH from
7 some recent research done by Doug Erwin and Pete
8 Cleanough at the University of Chicago is that our
9 hundred million dollars public investment in SEMATECH
10 caused a \$350 million reduction in industry effort in
11 research.

12 Now it may be it just eliminated useless
13 duplication, but it may also be that it will reduce
14 innovation because of the fact that the different
15 companies are no longer drawing different inferences from
16 what was seen to be duplicative.

17 The second issue that has to do with
18 heterogeneity of research and development as it pertains
19 to economies of scale within this, this various
20 components of products and processes, and here I want to
21 make the distinction that's sort of interesting between
22 how we think about this in product markets and how we
23 might think about it in R&D markets.

24 The interesting thing about R&D economies of
25 scope is that cooperation among heterogeneous firms is

1 likely to be a good thing if what they're doing is
2 genuinely completely non-overlapping -- if somebody in
3 the automobile business is looking at engines and
4 somebody else is looking at transmissions. All right.

5 That kind of intersection, it's almost
6 completely unlikely that it's going to be the fact that
7 there will be a reduction in R&D effort because they are
8 already, each firm, engaging in whatever amount is going
9 to be sensible for them, and indeed they might find
10 synergies across that, but the intriguing thing to do is
11 to think about what happens if they are really doing
12 research on transmissions and taking two different
13 approaches?

14 And there the issue of elimination of, quote,
15 duplication can be seriously inhibiting to the rate of
16 R&D advancement, so if one were going to get into the
17 business of deciding whether product innovation, whether
18 a, the R&D component of the industry, if it merged were
19 in fact procompetitive or anticompetitive, one would have
20 to know something in reasonably great detail about the
21 R&D portfolios of the companies.

22 In other words, it would have to, you would
23 have to know not only whether they were looking at the
24 same thing or not and whether it was likely or unlikely
25 they were going to draw the same inference from the same

1 project, but you would also have to look even when they
2 were doing things in the same general component of the
3 industry to know whether they were taking different
4 approaches or similar approaches.

5 Well, I have spoken of this mainly in thinking
6 about it in terms of mergers, and even though my example
7 was joint ventures, let me talk just a bit, and then I
8 will quit, about the, about the notion are mergers and
9 joint ventures pretty much the same thing, or is it in
10 fact the case that joint ventures are safer?

11 And here I would just like to make two
12 observations that in the case of R&D, we might -- there
13 would be circumstances that would arise where joint
14 ventures are actually less safe than even joint ventures
15 in production. All right.

16 That is to say, it isn't a clear-cut case, and
17 again, I don't want to say the arguments on the other
18 side are wrong.

19 I'm just saying they pertain to a special
20 circumstance, and I'm going to identify another special
21 circumstance.

22 The first is the most obvious one, which is
23 that intellectual property rights that are shared among
24 competitors are a great basis for cartel facilitation,
25 and the most -- this has been true ever since the

1 Bessemer patent pool of the 19th Century.

2 All that you have to do is set royalty rates on
3 access to the pool of patents equal to the difference
4 between the monopoly price and the competitive price, and
5 you can use a patent pool completely to produce the
6 monopoly price result in a highly competitive industry
7 where each firm is acting in the product market
8 completely independently, so there is -- that is the
9 most, is an important fact to examine -- that the patent
10 pool idea can simply over time mean that essentially all
11 of the benefits of innovation accrue to the innovating
12 firms and none to their customers.

13 Beyond that, notice that the joint venture
14 issue has the same contracting problem that acquisition
15 of research and development through the private market
16 would have if there were simply a vertically segmented
17 industry.

18 That is to say, if the joint venture is
19 distinctly separate from the competing firms that are
20 sharing in it, that is to say, it is not integrated into
21 those firms, then indeed the joint venture entity has
22 exactly the same contracting problem that the Department
23 of Defense has when it tries to contract for research and
24 development on a new missile system that it does not know
25 how to measure effort.

1 It does not know how to measure output. It
2 does not know how to tell when an idea didn't come to
3 fruition because it was a bad idea versus an idea didn't
4 come to fruition because there was insufficient effort.

5 It does not know how to assess whether the R&D
6 effort inside the joint venture has been captured for the
7 benefit of a subset of members of the joint venture.

8 The fundamental contracting problem that arises
9 in market-based allocation of research effort also
10 happens with respect to joint ventures.

11 And finally, there is another feature to it
12 which is a joint venture that was successful in
13 facilitating the spread of information across firms would
14 have the property of eliminating the first-in advantage
15 for firms, that is to say, if we examine industries like
16 the semiconductor industry or a lot of other industries,
17 a large fraction of what we observe is productivity
18 increases in those industries, is in fact learning by
19 doing.

20 It's not so much organized research in a formal
21 sense in a distinct research entity whose job is to
22 increase the technological base of an industry.

23 Instead it occurs right at the shop with
24 interaction between people who work on the assembly line
25 and product engineers that are sitting in the same

1 facility.

2 That learning by doing advantage is a large
3 part of the motivation for innovation, and if something
4 about the joint venture causes the copying of the, of one
5 firm's innovation more quickly by another, it in fact
6 reduces the incentive to innovate to begin with, so one
7 could have the property that one has a much more
8 efficient R&D operation but less innovation because firms
9 in competition with one another to get the first product
10 and to get learning by doing disappear.

11 Finally, with regard to the heterogeneous
12 product story, when we look at an industry that is
13 product differentiated, notice that in a product
14 differentiated industry as contrasted to a homogeneous
15 product industry, the consequences of a merger, the
16 negative economic consequences of a merger, are less than
17 the same industry structure with a homogeneous product.

18 Why? Because the firms in the industry already
19 enjoy market power, so the additional market power and
20 the additional profits they can extract by combining are
21 less.

22 Interestingly enough, sort of the opposite can
23 happen in the case of R&D mergers.

24 Why? Because in a heterogeneous product
25 industry, it is -- the principal means of competition is

1 very likely to be exactly what we were talking about,
2 what I was talking about before, namely, product
3 competition, and product competition is the means by
4 which firms would engage in, in displacing each other as
5 contrasted to price competition.

6 It is more likely to be product competition, so
7 again, a research and development joint venture in a
8 heterogeneous product industry has more likelihood of
9 eliminating the, that remaining domain of important
10 competition, and so has more anticompetitive concerns
11 rather than less that you would get from looking at
12 product market.

13 Well, these are a summary of my ideas. Let me
14 just conclude by saying I do not want anybody to think
15 that I believe as a consequence of what I just said that
16 it is a bad idea to think separately about the R&D aspect
17 of a business when -- and indeed to take into account the
18 possibilities that economies of scale and scope and
19 eliminating duplication are important efficiencies
20 arising from joint ventures or mergers. I do not mean to
21 say that.

22 What I mean to say is that if one is going to
23 get into the business of taking these into account, one
24 is required to have a very serious set of first of all,
25 rules of thumb that will convey good information to

1 firms, that will tell people what the criteria are for
2 making these decisions, and secondly, one has to have a
3 substantial increase in in-house analytic capability in
4 an antitrust agency to make certain that these things are
5 brought to bear.

6 That is to say, you would need to know these
7 questions about exactly what is the nature of research
8 and development and that structure within the industry in
9 order to be able to assess whether there were more likely
10 to be good than harm arising from a merger or joint
11 venture.

12 Thank you.

13 COMMISSIONER STAREK: Thank very much,
14 Professor. That was most interesting, quite helpful,
15 sincerely appreciated.

16 Well, our final speaker this afternoon is Bob
17 Skitol.

18 Bob is a member of the litigation department in
19 the law firm of Drinker, Biddle & Reath, and between 1987
20 and 1992, he was a partner in Pepper, Hamilton & Scheetz,
21 and before that, a partner at Wald, Harkrader & Ross.

22 From 1970 to 1971, Mr. Skitol served as an
23 attorney advisor to the Chairman of the Federal Trade
24 Commission, and then served for a year as Special
25 Assistant to the Director of the Bureau of Consumer

1 Protection.

2 Mr. Skitol specializes in antitrust and trade
3 regulation, and he has written and lectured extensively
4 on this subject, and lately he has been focusing on
5 international competition policy.

6 In fact, he recently served as a special
7 consultant on competition policy to the Government of
8 Jamaica and participated in drafting the recently enacted
9 Jamaica Competition Act.

10 Bob, thanks for coming.

11 MR. SKITOL: Many thanks, Commissioner. I'm
12 really delighted to be here, and I thank the
13 commissioners and the staff, and I'm especially honored
14 to be in the presence of the distinguished speakers
15 before me.

16 I guess what I will do today is talk about the
17 same subject, but from a working lawyer's perspective,
18 and I would define the topic that we're talking about
19 here again from a working lawyer's and counselor's
20 standpoint as one that I think is, is among the most
21 difficult, but also one of the most critical antitrust
22 tasks of our day, which is the development of practical
23 standards for the evaluation of innovation effects and
24 decision-making about mergers and other kinds of
25 collaborations in the high technology sector.

1 For those of us struggling to stay on top of
2 all of the latest thinking on this subject, we appreciate
3 the fact that there already is a major body of learning
4 and major body of economics literature, a great deal of
5 it coming from the economists that are with us this
6 afternoon, and also a great deal of learning already in
7 being from the enforcement agencies, from this agency,
8 yet the fact remains that we collectively, the antitrust
9 community, are still at a very early stage in our
10 education in this area, and the central question yet to
11 be answered in plain English is how one determines with
12 some reasonable degree of confidence the difference
13 between those consolidations of rival R&D efforts that
14 are likely to generate efficiencies and thereby enhance
15 innovation output, and those consolidations more likely
16 to be predominantly anticompetitive and thereby reducing
17 innovation output.

18 I think at that point, I do drop a footnote
19 citation to Roger Noll's remarks. I know that I'm among
20 many in the antitrust bar that applauds this Commission's
21 commitment to addressing that question as thoughtfully
22 and thoroughly as is evidenced by this set of hearings,
23 but let me begin by respectfully submitting that from my
24 perspective, this agency already possesses an impressive
25 degree of sophistication about innovation and about the

1 imperatives of the high technology sector.

2 My clients often begin the Hart/Scott/Rodino
3 process here at this agency with doubting concern as to
4 whether the reviewing staff is capable of understanding
5 their technologies and their business dynamics.

6 They more often than not end the process with
7 considerable respect for the competence and the knowledge
8 that the staff brings to bear on their transactions.

9 Of course, that's especially the case when
10 their transactions get cleared -- exactly.

11 But still the general point holds for, for many
12 people in Silicon Valley. Howard Morse and his merry
13 gang are the human face of what antitrust is all about,
14 and what it means to their companies, and this Commission
15 can take a great deal of pride in how Howard and his
16 staff perform their role in the computer industry and the
17 allied industries that, for which his group has been
18 responsible.

19 Let me quickly add, however, that there is a
20 certain black magic quality and lack of transparency
21 about the decision-making, especially about the
22 conclusions reached on high visibility confidential
23 transactions, and to put it another way, there's little
24 doubt in my mind that both the staff and the leadership
25 of this agency possess more insight on these matters than

1 has been disclosed to date, and of course this is
2 understandable.

3 There are institutional as well as legal
4 confidentiality-related inhibitions upon what can be
5 disclosed about the decision-making on particular
6 transactions.

7 With due regard to those inhibitions, I believe
8 the Commission can do more to enlighten the public on
9 what lies behind the decisions being made.

10 I think there are two ways that this can be
11 done, or at least two possible ways that I would like to
12 suggest.

13 The first relates to the paper that comes out
14 when the Commission announces a complaint and consent
15 order.

16 The papers include the so-called analysis to
17 aid public comment, which is an adjunct that has been
18 around for about 25 years now, but that analysis
19 typically does almost nothing to inform the public about
20 the thinking involved beyond a bare summary of complaint
21 allegations and proposed order provisions.

22 Many high technology transactions subject to
23 complaints and settlements in the last few years have
24 involved both fairly provocative liability theories and
25 also creative fixes.

1 The accompanying analyses shed very little, if
2 any, light on what are surely thoughtful judgments and
3 difficult tradeoffs behind these resolutions.

4 The published analyses could be more
5 enlightening than they are without improper breaches of
6 confidentiality, particularly since the agency possesses
7 some leverage to extract the parties' consent to more
8 openness in the course of the consent negotiation
9 process.

10 Let me add that my criticism in this regard and
11 my, my suggestion are equally applicable to the Justice
12 Department's typical Tunney Act filing, their so-called
13 competitive impact statement.

14 Second, when the Commission clears a
15 transaction without extracting any order, no settlement
16 at all, the clearance will again often be the product of
17 a difficult and extended decision-making process, but the
18 public never learns anything about it.

19 There is a way to lift this available to some
20 extent anyway suggested by former Assistant Attorney
21 General Jim Rill about four or five years ago.

22 He began a process in which through speeches at
23 public gatherings, he identified particular transactions
24 that raised novel issues and then proceeded to elucidate
25 the division analysis and reasons for ultimately

1 resolving the issues in favor of clearing the transaction
2 without any relief.

3 He had apparently elicited the consent of the
4 parties involved to, their advanced consent to his using
5 their transactions as the examples in his speech
6 speeches.

7 From my perspective as an outside counselor, I
8 found those speeches informative and valuable to my
9 counseling function.

10 Unfortunately, there were only a couple
11 speeches in that series and then the idea just kind of
12 went away.

13 Perhaps this would be an appropriate time for
14 FTC commissioners to experiment along these same lines
15 with the focus upon clearance decisions involving
16 resolutions of difficult innovation issues.

17 Of course the FTC commissioners are already
18 well down the road in utilizing speeches to enlighten the
19 public generally on agency thinking about innovation
20 concerns.

21 Commissioner Varney particularly has
22 contributed importantly to the dialogue in this area with
23 her series of speeches on innovation and related themes.

24 I offer my suggestion about clearance decisions
25 when no orders are issued as really just a possible

1 modest addition to efforts already underway and
2 appreciated on this front.

3 Now I would like to turn to the HSR process
4 itself where my experience has been that the various
5 recent additions and refinements to the procedures have
6 materially enhanced the efficiency of the process
7 generally.

8 My main thought on this subject today is to
9 urge consideration of a pre-filing process particularly
10 for transactions in the high technology sector.

11 The reason for special treatment in this area
12 is that these transactions often involve new
13 technologies, complex issues of market definition, and
14 exceptionally difficult issues relating to innovation
15 effects.

16 It's in the interests of everyone concerned to
17 begin a dialogue about transaction-specific issues of
18 this kind at the earliest possible time with a view to
19 maximizing the prospect of an informed and correct agency
20 judgment about the transaction without the necessity of a
21 messy and prolonged second request.

22 There are potential inhibitions on a pre-filing
23 process of this sort.

24 Agency staff may have understandable
25 reservations about devoting scarce time and resources to

1 a transaction not yet filed, especially if there is doubt
2 as to whether the FTC or DOJ would ultimately receive
3 clearance under the liaison process.

4 These inhibitions can be addressed particularly
5 since for many transactions in the high technology
6 sector, there's little doubt or there should be little
7 doubt that FTC rather than DOJ is the logical agency to
8 receive the responsibility based on its handling of other
9 transactions in the same field or similar field.

10 I can tell you that among many companies in the
11 high technology sector, there is considerable interest in
12 obtaining this kind of early insight and advice on agency
13 staff reaction and thinking about transactions under
14 negotiation.

15 All that's really needed to make the process
16 happen is some formal or indeed informal Commission
17 statement that expressly invites pre-filing meetings of
18 this kind.

19 Now with a view to deepening our knowledge of
20 how different kinds of R&D collaboration actually do
21 affect innovation, let me suggest a research project for
22 the Commission's Bureau of Economics. I don't know if
23 Jonathan will like this idea or not, but I'll try it out.

24 The Commission now possesses ten years' worth
25 of NCRA and NCRPA notifications, including a wide array

1 of organizational structures from loose consortia to
2 consolidations that are the functional equivalent of
3 asset mergers, R&D asset mergers if you will.

4 Why not select a half dozen or so of these
5 collaborations, focusing on the ones that are perhaps
6 more like mergers or closer to the merger side than the
7 consortia side, and that involve leading players in
8 consolidated parts of the high technology sector, take a
9 half a dozen or so ventures of that sort from the filings
10 of several years ago, and take a close look at what has
11 evolved -- how precisely and to what extent have those
12 collaborations been efficient and been successful?

13 What actual impact on innovation generally in
14 the affected markets can be discerned?

15 Perhaps through in-depth interviews of industry
16 personnel, those involved in the ventures, and also
17 outsider from competing companies, you would discover a
18 range of views as to whether the innovation impact had
19 been good or bad.

20 These studies could generate new insights into
21 conditions most conducive to efficient R&D, into the
22 impact of these collaborations on industry-wide
23 innovation incentives and related issues.

24 I think the Commission would want to be
25 extremely careful about generalizing from studies of this

1 sort, but they nonetheless could prove useful to the
2 evolution of merger and joint venture enforcement policy
3 for the high technology sector, I think especially for
4 the evolution of creative remedies for transactions
5 raising innovation concerns.

6 I want to offer a thought specifically about
7 remedies.

8 Chairman Pitofsky recently floated the idea of
9 subsequent review or conditional clearance aspect for
10 some transactions where there would be an agency
11 commitment to ongoing monitoring, post-consummation
12 monitoring with regard to competitive effects and whether
13 or not promised efficiencies materialized.

14 This seems to me to be an idea that should be
15 tried, and I would especially urge application of it in
16 connection with licensing renewals.

17 The consent orders of this sort have been
18 controversial with lively debate over their efficacy, and
19 an acquisition cleared in reliance on entry into the
20 relevant market by a licensee of the merged firm's
21 technology would seem to be an ideal candidate for close
22 monitoring with the view to ascertain whether the
23 selected licensee really does become over time an
24 effective competitor, particularly one really capable of
25 innovation rivalry against the licensor.

1 These orders generally rest on the premise that
2 conveyance of rights to intellectual property combined
3 with requirements for technical assistance suffice to
4 create effective competition in innovation as well as the
5 related goods markets involved.

6 They also rest on judgments that the chosen
7 licensees already possess other essential innovation
8 assets such as human capital, a corp of people with
9 relevant expertise in their heads.

10 Whether these judgments have been correct is a
11 question deserving close scrutiny a year or two after
12 completion of the compliance implementation process.

13 Let me skip over parts of my prepared statement
14 to move us along.

15 I think I'll just -- well, I did want to say a
16 few words that, but without the detail in my prepared
17 statement, about agency resources.

18 I have made the suggestion that perhaps the
19 time has come for the agency to think about expanding the
20 kinds of professional staff that it has.

21 It's now an agency exclusively of lawyers and
22 economists, increasingly called upon to, to evaluate
23 cutting edge technologies.

24 Perhaps the agency ought to have its own
25 computer scientists or two, software engineers, so forth

1 and so on, raise the question of where are the resources
2 going to come from at this time of budget austerity?

3 And my prepared remarks include a brief
4 editorial about what would be wise or unwise for the
5 United States Congress to do with the budget of this
6 agency, so I'm just going to skip over all that, but I do
7 think that with the kinds of mergers before this agency
8 and the high technology merger wave that is only going to
9 intensify in the coming years, that the high technology
10 community itself should be the leading advocate of
11 increasing rather than decreasing the budget of this
12 agency.

13 The industry itself is going to be among the
14 victims of anything done that undercuts the ability of
15 this agency to, to deal in an informative and an informed
16 manner with these kinds of transactions.

17 I'm just going to go to a couple final
18 thoughts.

19 At some point along the innovation learning
20 curve, the Commission together with the Antitrust
21 Division should undertake to articulate the standards for
22 this analysis in some clear, understandable form, and I
23 would suggest that it should be done within the four
24 corners of the merger guidelines.

25 The best and most logical place to do so is

1 through an expansion of the guidelines efficiency
2 section.

3 The fact of the matter is that in contrast to
4 most parts of the guidelines, the section on efficiencies
5 is uninformative.

6 It's also essentially unrepresentative I would
7 suggest, unrepresentative of the de facto decision-making
8 process that has occurred in the past few years.

9 It's my belief that both enforcement agencies
10 do in fact now evaluate merger efficiencies to a greater
11 degree and with more sophistication than suggested by the
12 verbiage in this part of the guidelines.

13 The one exceptionally valuable and practical
14 outcome of the Commission's investment in these hearings
15 could be the formulation of a new efficiency section that
16 captures the essence of how the agencies do and should
17 address this critical dimension of transactions that come
18 before them, and permit me to add that the agency should
19 also as part of the same re-examination fix a related
20 problem in current antitrust law and policy that, that
21 our economists this afternoon have, have also referenced
22 or described in one manner or another, and that the way I
23 put it is a mischievous lack of clarity as to whether and
24 how the conceptual framework and modes of analysis set
25 forth in the merger guidelines apply to other forms of

1 horizontal collaboration, including the many variations
2 one sees throughout the high technology sector these
3 days.

4 I submit to you that the same general framework
5 and analysis of market power, entry barriers, competitive
6 effects and efficiencies that form the core of the merger
7 review process should be equally applicable to such
8 operating structures as strategic alliances, R&D, or
9 production or other joint ventures and standard setting
10 consortia efforts.

11 Of course different degrees of collaboration
12 entail different decrees of resource integration.

13 These differences should be considered in
14 evaluating likely ramifications, but again, the framework
15 and overall mode of analysis should be the same for all
16 forms of collaboration with the same objectives in mind.

17 There's a good deal of confusion as well as
18 difference of views on this front, particularly among the
19 federal courts, but also within the actions and
20 pronouncements also of the Federal Trade Commission
21 itself.

22 By way of example, it's clear enough in today's
23 enforcement environment that market power is a threshold
24 screen in merger policy.

25 It's anything but clear as to whether or how

1 market power analysis serves the same role in either this
2 agency's or the judiciary's application of rule of reason
3 standards to other less permanent or less complete forms
4 of resource integration.

5 Again, for example, the description of the rule
6 of reason standard in the recently issued antitrust
7 guidelines for intellectual property licensing is
8 exceptionally vague in this respect, and the reference in
9 it to the Commission's Mass-Board standard compounds the
10 confusion on this subject.

11 The role of efficiencies, while needing
12 considerable further elaboration as applied to merger
13 policy, as we have already discussed, is even more in
14 need of attention as applied to other collaborative
15 structures.

16 Many of us see confusion and divergence in the
17 treatment of this subject among federal courts,
18 particularly in private litigation over what might be
19 called hybrid collaborations, those that entail some
20 aspects of joint R&D, but also entail some elements of
21 industry standard setting or technology standardization.

22 There are collaborations of that sort that
23 incidentally, have been NCRA registered and nonetheless
24 have gotten rather bogged down in private litigation
25 which, and I suppose in the discussion session or session

1 later, we will have opportunity to talk this over a bit.

2 I'm certainly on the side of those who believe
3 that the NCRA has failed in the mission to clarify and
4 reduce litigation exposure, which to my mind makes it all
5 the more desirable that the FTC undertake the job of
6 helping to clarify what should be the standards in this
7 area.

8 The Commission is the logical forum for
9 thoughtful development of antitrust law and policy in
10 this area generally.

11 I have co-authored a modest proposal on this
12 front with apologies for its not so modest title. It's
13 called, "A Proposal for Guidelines Deproliferation and
14 their Consolidation into One Simple, Rule-of-Reason
15 Framework."

16 It doesn't capture the general point to be
17 made, but it's still -- I think this is a good place to
18 begin on the process, and it's a good place for me to
19 conclude my comments today by just reiteration of the
20 need for a clear set of standards for the role of
21 efficiencies generally, and for innovation efficiencies
22 in particular in decision-making on high technology
23 collaborations of all sorts.

24 So my thanks again for the opportunity to
25 appear before you, and special hats off to Susan and

1 Debra for their outstanding work in organizing these
2 hearings.

3 COMMISSIONER STAREK: Well, thank you very
4 much. That was a very interesting suggestion there.

5 At this point, I think it behooves us to take a
6 little break, maybe about ten minutes, to give the
7 reporter an opportunity to change the tape and all of you
8 to ponder questions and responses to our suggested
9 questions.

10 I guess when we return we will begin with
11 Commissioner Steiger's initial inquiry to Tom Jorde, so
12 about ten minutes.

13 (A recess was taken.)

14 COMMISSIONER STAREK: Welcome back. I guess
15 we're all assembled.

16 I thought before we would turn to the question
17 that Commissioner Steiger raised of Tom Jorde that we
18 might give Sam Miller an opportunity to, to chime in.

19 Sam participated in our morning session and sat
20 through all afternoon now, and I thought maybe you might
21 have a comment or some thoughts about some of the remarks
22 that you heard this afternoon.

23 MR. MILLER: All right. Well, this morning I
24 did talk about the importance of interoperability in the
25 computer industry, and urged the Commission to take

1 several actions to promote and support interoperability,
2 one of which is responsive to Commissioner Steiger's
3 question, which is could anything be done to the National
4 Cooperative Research and Production Act, and I suggested
5 that perhaps the Commission could either declare that the
6 Act now covers or seek to gain coverage for
7 collaborations among competitors to support an interface
8 specification or a compatibility standard, because this
9 is the kind of collaboration that I think that the Act
10 was intended to promote, especially through the 1993
11 amendments.

12 And with respect to the comments I heard this
13 afternoon, I do have a -- I would like to ask Professor
14 Ordover and Tom Jorde to, maybe to comment further on
15 whether they believe that the antitrust enforcement
16 regimes as understood now and as implemented by the
17 agencies does get in the way of efforts to achieve
18 interoperability?

19 PROFESSOR JORDE: Oh, that's a question? It
20 seems to me that that's one we can pass around that
21 should go to the agency.

22 I'm not aware of agency difficulties, and we
23 have had cases of private litigation popping up for
24 access.

25 You probably are talking about Addamax from

1 this morning, and I could imagine situations where agency
2 guidance or participation in some way or statements,
3 including just talks, could be of help, but that's not
4 going to stop private plaintiffs, and one of the problems
5 we have in a lot of these areas is we, we see agencies
6 both here and at the Department of Justice evolving
7 effectively in the sense of really caring about
8 innovation issues, looking hard at the facts involved,
9 looking hard in many of the same ways, Roger, that you
10 were asking agencies to look at in terms of evaluation,
11 and it doesn't necessarily carry over into private
12 litigation brought outside the context of the agencies,
13 and there is nothing we can do about that short of
14 District Courts themselves being clear on rule of reason
15 standards that they are applying.

16 MR. MILLER: Well, the agency, the agency can
17 help clarify things either through guidelines or actually
18 through intervention in cases such as filing amicus
19 briefs in appropriate cases.

20 When I was at the Department of Justice, the
21 Department was asked often to intervene in that way, and
22 that is a role that the Commission could undertake in
23 appropriate cases, especially in helping clarify how the
24 rule of reason should be interpreted with respect to
25 procompetitive collaborative activity.

1 PROFESSOR ORDOVER: Let me just say one word,
2 and that is that the problem is the agency stepping in,
3 unlike the courts that have to consider such problems
4 because they are brought by private plaintiffs -- I think
5 it is very difficult to draft even a semi-general set of
6 guidelines that would govern the issue of how standards
7 do affect competition one way or the other, and one of
8 the major factors that one should look at other than
9 simply listing what, about 15 or 20 articles which
10 Commerce so far have generated, and all of them are
11 totally inconclusive because they are specific to the
12 details of the situation that is being, that is being
13 considered, so I would be at this stage, be somewhat less
14 inclined than Sam Miller to suggest to the Commission
15 that it actually does say something or that Ann Bingaman
16 says something.

17 Maybe Carl Shapiro will say something because
18 he wrote half of those articles, because the problem is
19 that I just don't know what the best economics is on the
20 subject matter at this stage of the game, and I think
21 that unlike even in horizontal merger cases, we have
22 varied some the playing field.

23 I think the same thing is beginning to emerge
24 perhaps in the straightforward vertical merger settings.

25 COMMISSIONER STAREK: You do?

1 PROFESSOR ORDOVER: Yeah, I think so. I have
2 all the answers!

3 But when it comes to so-called network
4 industries, when it comes to standards, when it comes to
5 the issues of competitive forces working one way or the
6 other, there's too much uncertainty for a profound
7 statement that would, that would actually guide these
8 things in a way that, that I would find appropriate.

9 Maybe there is a benefit in fact of having
10 competitive rules developed through competing
11 jurisdictions.

12 It's a free market -- in trying to figure out
13 exactly what's going on through competitive lawsuits, and
14 I think that may be a way to actually ensure some kind of
15 consensus down the road, but I don't think we are there
16 yet.

17 COMMISSIONER STEIGER: I would like to ask
18 anyone who cares to comment about the quote, unquote
19 standard setting in general and see if they would agree
20 with the distinction I'm going to draw at least
21 hypothetically.

22 I think the Commission has experience in what I
23 would call the goods standardization market, and by that
24 I mean the typical voluntary grouping of competitors
25 through association from which they may determine for

1 safety, for efficacy, for performance standards for let
2 us say such things as copper piping, durable goods, or
3 inputs to a manufactured product, including, of course,
4 household or insulation.

5 We are familiar I think with the rather fulsome
6 literature on the potential anticompetitive result; I
7 will limit my example only to an exclusionary practice
8 against a new product or alternative product.

9 Would you agree that hypothetically there is a
10 difference between that kind of standard and a standard
11 such as a computer interface which may have perhaps a
12 higher degree of patentability or protection or
13 conversely less, depending upon whether it's a built-on,
14 add-on idea product or not, and that traditionally the
15 marketplace has settled those issues?

16 I'm thinking of the Beta, what is it --
17 Beta/VCR?

18 PROFESSOR ORDOVER: VHS.

19 COMMISSIONER STEIGER: VHS history in which as
20 I understand it, a market preference was established, at
21 least as I understand it.

22 Would you apply a different role for this
23 Commission in the area of invasive standards or not?

24 MR. MILLER: Actually I spoke about that in
25 some depth this morning, but just to briefly reiterate

1 what I, what I said, I think there is a difference
2 between, there's a difference, No. 1, between mandatory
3 standards like government approved codes and voluntary
4 standards.

5 There is also a difference between open
6 standards and proprietary standards.

7 And by open, I mean those that are publicly
8 available and can be implemented by anybody in the
9 industry, and either are free or are licensed at a
10 nominal cost by the developer. That would be an open
11 standard.

12 A proprietary standard is one that either is
13 exclusive to the developer, or you have to pay a lot of
14 money to utilize, and there is a difference between
15 competitors getting together with the purpose and effect
16 of excluding new technologies.

17 A lot of the cases that are on the books relate
18 to that like the Allied Tube case and the Hydrolevel case
19 and the Radiant Burner case, and even the Sessions case.

20 That's different from I believe necessary
21 collaborations today to get products out into the market
22 because in some situations, a critical mass of companies
23 has to support a certain new technology in order to get
24 it going and get it out there, and in the computer
25 industry, that it is often the firms with the smaller

1 market shares actually that get together and try to agree
2 on an interface specification, not the same way to do
3 something, but at least so that the different
4 technologies can talk to each other, and they get
5 together in the face of trying to compete against one
6 dominant firm which by the sheer muscle of its market
7 share is trying to impose a standard on everybody else,
8 and there is a, there is more antitrust risk for the
9 smaller firms that collaborate than to the giant firm
10 that can do it on its own unilaterally, so I think there
11 is a difference and should be a difference between those
12 collaborative efforts intended to suppress and --
13 suppress a new technology -- versus collaborative efforts
14 to help a new technology emerge. And many times, the
15 interface, the collaboration between competitors on how
16 are our machines going to talk to each other I think is
17 procompetitive because it is helping establish that
18 critical mass so that the technology can get out there,
19 and I gave some examples in the morning.

20 There is one interesting facet of the VHS/Beta
21 fight which I think deserves a little bit more emphasis.

22 Beta was a proprietary standard of one company,
23 and it decided to try to do it alone, and it lost.

24 What is -- and it lost to the VHS standard,
25 which as I understand it, was licensed very cheaply to a

1 whole bunch of companies, so there we had a specification
2 which then could be implemented by lots of different
3 companies and then companies that were manufacturing the
4 VHS machines could compete against each other in how well
5 they implemented the standard, and the benefit of that is
6 that VHS machines have gone down dramatically in price
7 from, you know, \$2,000 when I bought a Beta machine, by
8 the way --

9 COMMISSIONER STEIGER: You guessed wrong.

10 MR. MILLER: I guessed wrong because they said
11 it was better technology, so I'm one of those stranded
12 consumers that they talk about.

13 PROFESSOR NOLL: You're supposed to buy one
14 more than once every fifteen years!

15 MR. MILLER: But the price, when you look at
16 the price --

17 COMMISSIONER STEIGER: Practically
18 anti-American, isn't he?!

19 MR. MILLER: You know, the price has gone down
20 from over \$2,000 to \$200 -- on the VHS machine because
21 there has been competition in the implementation of the,
22 basically an open standard, and you see the same thing in
23 the computer industry with respect to how the prices of
24 PCs have come down when there are lots of different
25 companies competing to implement compatible standards.

1 There is risk when you have one company trying
2 to dominate a market by setting its own proprietary
3 standard, and Janusz knows all about that.

4 MR. SKITOL: Let me just add a comment about
5 this whole technology standard setting area, and
6 particularly standard setting activities acknowledged as
7 promoting interoperability of the sort Sam was talking
8 about.

9 COMMISSIONER STEIGER: Do share with us because
10 you had some thoughts on how the National Cooperative
11 Research joint venture legislation might or could be in
12 your opinion improved, and we have had one suggestion.

13 I would be most interested in any others that
14 you have.

15 MR. SKITOL: Right. Okay. Well, I think that
16 the NCRA is not, not, it is in fact not helpful to
17 standard setting.

18 You know, there's a difficulty with pigeon
19 holes that we have been into for ten years since the
20 original NCRA which was aimed at R&D, and so I know some
21 standard setting efforts that got going in the 1980s, and
22 they actually went through NCRA filings, and then a
23 disaffected competitor decided to bring an antitrust
24 suit, and in response to the defense that well, this is
25 an NCRA protected organization, the counter-response was

1 oh, no, it isn't. This isn't bona fide R&D. This is
2 standard setting, and that's something different.

3 The whole, the whole technology standard
4 setting thing is highly sensitive to, to antitrust
5 bullying by the private bar.

6 What happens is if you have ten companies in an
7 industry that need to get together to commonalize and do
8 a standard that will promote interoperability, you're
9 going to end up with ten different antitrust lawyers in a
10 room arguing about, you know, what is and is not, and is
11 not permissible as their clients argue about whose
12 proprietary technology should or should not be adopted to
13 become key parts of the standard, and this is an area
14 where a lot of very, very desirable standard setting is
15 not, is not proceeding very well and is being bogged down
16 because some, somebody out there has hired an antitrust
17 lawyer to send a threatening letter trying to make an
18 antitrust violation out of what really shouldn't be, be
19 considered an antitrust violation.

20 The NCRA doesn't help. I think the FTC could
21 help. I think there's, there is serious guidance about
22 good versus not so good ways to do standard setting in
23 this area from an antitrust standpoint that the FTC could
24 provide.

25 The big problem today is that antitrust lawyers

1 out there involved with these groups are having a lot of
2 fun arguing about how the essential facilities doctrine
3 should or should not apply to these kinds of
4 collaborations, and it's an area where flaky threats of
5 antitrust litigation are having mischievous impact, and
6 it's an area where I think the FTC could perform a very
7 desirable role in, in taking the lead in providing
8 thoughtful guidance.

9 COMMISSIONER STEIGER: Thank you.

10 PROFESSOR JORDE: I'm going to respond a little
11 bit and follow up.

12 One of the -- I think we're, Bob, we're back to
13 the problem of what the FTC is capable of doing in its
14 arena and how that affects the arena where the lawyers
15 are having trouble and sending threatening letters.

16 They are different arenas, and you can get
17 guidance about rule of reason analysis and the importance
18 of standard setting and how do you it and how it would
19 vary depending on what markets were being covered,
20 whether you had -- very different setting whether you're
21 trying to capture an entire market and say that's the
22 standard for it versus, you know, here is a group that's
23 pulled together one third of the smallest of competitors
24 who are going after the dominant firm.

25 Those are very different analytical

1 circumstances it seems to me, but worse than that, I mean
2 you can sort of state the general principles.

3 What I have a hard time understanding, what it
4 is the FTC would say about this that will stop the
5 plaintiff's lawyer from writing the threatening letter
6 where the lawsuit will be treble damages oriented in a
7 Federal District Court.

8 My own sense there is I don't see a, short of
9 Congressional legislation, and that isn't in the cards at
10 all, I don't see anything short of a number of cases
11 decided one at a time, unfortunately, while judges
12 finally come to terms with safe harbors within rule of
13 reason analysis, and here the agencies are farther ahead
14 unfortunately I would say than the courts are.

15 PROFESSOR ORDOVER: A couple of thoughts -- you
16 characterize these as threatening and frivolous and so
17 on, but that obviously depends on where you sit, and I
18 presume if you and Sam were to talk about, you know, what
19 is or is not frivolous as opposed to just plain
20 threatening, the extortionary use of the antitrust
21 process, but as a serious concern, I think that even
22 amongst lawyers, there would be genuine disagreement in
23 the same way there exists among economists or even in
24 business practice, if you take standards, there is a
25 serious thought being expressed that standards which are

1 open which nobody owns never get anywhere.

2 For example, let's look at failure of Unix in
3 many applications to develop.

4 In fact, there was a non-starter for so many
5 years because it was not sponsored adequately by anybody.

6 At the same time, whatever you may say about
7 the MS DOS standard, it certainly succeeded beyond
8 anybody's expectation because it was sponsored, and
9 powerfully so, by Microsoft.

10 Now are we better off with having a standard
11 that nobody owns or licenses for a penny without taking
12 the risk to develop it, or are we better off with a
13 standard that somebody is trying to control and set like
14 Microsoft has done or Intel?

15 I presume there are many other examples from
16 the software and other industries, in which the firm is
17 taking substantial risks potentially to develop the next
18 generation, which is why my initial reaction was that you
19 don't just know enough to even contemplate the
20 guidelines.

21 At least I wouldn't know how to do it, speaking
22 for myself, and I don't know, you know, I can't speak for
23 others, but I believe that these tradeoffs are so
24 genuinely tough that anything but some reasonably
25 structured rule of reason and some development of

1 litigation of cases that would give us some way of
2 working through particulars as opposed to general
3 statements I think strikes me as a more fruitful way to
4 proceed than a statement from the FTC that standard
5 setting should not be used for antitrust purposes, and
6 you know, if it's unduly exclusionary or unduly
7 inclusive, we will, we will, you know, extend an amicus
8 in private litigation.

9 What else can be said other than those three
10 sentences? Maybe they are helping, but I'm worried about
11 more than three sentences.

12 COMMISSIONER STEIGER: If you're worried about
13 more than three sentences, I'm worried. It's not your
14 normal worry.

15 PROFESSOR ORDOVER: It depends.

16 COMMISSIONER STEIGER: The same can be said of
17 all commissioners at the Commission.

18 MS. DE SANTI: I have a question for Tom
19 initially, but I would like to get the opinions of others
20 as well.

21 In your remarks, you have talked about one of
22 the possible justifications for these joint ventures
23 being that there is weak appropriability of the
24 innovation that comes about through the joint venture,
25 and I understand and I think it's very interesting your

1 analogy to the free rider rationale that's developed in
2 antitrust case law. It's pretty securely there at the
3 moment.

4 My question is how, how do we understand when
5 we're just furthering a right, what has at least over the
6 past couple of decades become a fairly usual antitrust
7 argument and when are we trespassing on what Congress has
8 had to say about the extent of intellectual property
9 rights, and when are we going beyond that to get into an
10 area that Congress has resolved in a particular way,
11 whether it's the extent of copyright or patent
12 production, and take on a role that's not appropriate for
13 antitrust?

14 PROFESSOR JORDE: That is an absolutely
15 first-class terrific question.

16 It really goes to the core of worrying about
17 this intersection of antitrust and intellectual property
18 and for which I will say real quickly I don't have an
19 answer.

20 The answer is in all cases I think, and it's
21 not, I'm not ducking when I say that because I think
22 there's no other way than to look seriously at what the
23 claims are about the intellectual property and the
24 reasons that, for example, trade secrets and the
25 possession of them in this particular industry setting

1 don't lend themselves at all to patenting, and therefore
2 there is not a public knowledge tradeoff available for
3 keeping the intellectual property in-house, and therefore
4 in that case, the public goods characteristics and free
5 rider possibilities are quite real if things are not
6 contractually bounded in.

7 It seems to me you have got to pay attention
8 carefully to the technology involved, the intellectual
9 property involved to see if the claims are legitimate
10 because they might not be, but that, that itself is not a
11 complete answer at all because it doesn't address in a
12 way a more fundamental question that I think you stated
13 perhaps like this, that is, are we to read Congressional
14 statements through legislative enactments in the area of
15 intellectual property as the final line and anything else
16 that doesn't fall within an already legislated area is
17 open for imitation?

18 And that's the tradeoff that Congress struck,
19 and any private contracting arrangement to stop or
20 otherwise thwart that imitation possibility is fair game
21 for, for imitators and shouldn't be used as a
22 justification for collaboration that otherwise might
23 raise market power problems.

24 I mean my own view, and it is just a view, is
25 that the tradeoff that Congress has drawn with respect to

1 patenting and copyright is not the limit of intellectual
2 property.

3 Nothing is inhibiting state law protecting
4 trade secrets and the like even though Congress might not
5 have stepped in the same areas.

6 Lots and lots of innovation and intellectual
7 property falls outside of patents and copyright, and
8 studies have demonstrated in a lot of industries
9 patenting is not sufficient, so it seems to me that there
10 is no reason to think that when intellectual property or
11 a trade secret or tacit knowledge type is significant,
12 and parties collaborate to gain the rent on it, it
13 doesn't seem to me that Congress has eliminated that as a
14 good thing as long as the end product of that is further
15 innovation.

16 That doesn't make the balance less difficult,
17 but I would certainly argue against the idea that well,
18 we have taken care of that from a federal intellectual
19 property point of view and if it's not already in, then
20 there shouldn't be any further prospect of collaboration
21 to capture additional value.

22 PROFESSOR ORDOVER: So it's not clear exactly
23 what the Congressional view of anything was on that
24 subject, but if you just look at the patent protection,
25 prior to the setting up the special tribunal for the

1 patent enforcement, it was the case that outside of the
2 court plaintiffs, the infringers prevailed with huge
3 certitude.

4 Something like 60 percent or more percent of
5 the cases, the court would find a patent invalid or no
6 infringement or limited infringement.

7 Nowdays it's completely flipped. Indeed it is
8 almost impossible to prevail as an infringer against the
9 holder of the patent, or I don't know about copyright,
10 but certainly on the patent side, so the mandate is, you
11 know, as a patent, you have the right to exclude, but
12 that doesn't mean that you have no right to get as much
13 profit as you can from that grant of the property right.
14 That would not conflict with some basic precepts of
15 competition, so I don't see the conflict as stark as you
16 perhaps posed it.

17 Maybe there is some, but certainly not as stark
18 as that question would deem.

19 MR. MILLER: I'm going to ask what may be a
20 simple-minded question, but I think that it does raise
21 the potential tension between intellectual property
22 protection on the one hand and consumer benefit on the
23 other, and that is was the cloning of the IBM PC a good
24 thing?

25 Now it certainly wasn't good for IBM, but was

1 it good for all the users in the world?

2 And I would submit as we talked about before,
3 there has been tremendous innovation and variety and the
4 price has gone down, and that's because there was, there
5 were companies that were able to, by cloning, create
6 compatible products.

7 There is a tension sometimes between
8 intellectual property protection and the ability to
9 create consumer choices and promote innovation, and that
10 is going to be before the Supreme Court in the Lotus
11 versus Borland case.

12 If you focus in particular on the concurring
13 opinion of one of the judges, he focused on the potential
14 anticompetitive aspects of upholding Lotus' copyright
15 claims, and there could, or the ability to reverse
16 engineer an interface is something that in the Sega
17 versus Accolade case, for example, was held to be
18 procompetitive, and in some circumstances, where you have
19 a dominant firm with the proprietary interface, that may
20 be a good thing.

21 I mean I'll pose a hypothetical to Professor --

22 PROFESSOR JORDE: Before you propose a
23 hypothetical, I want to comment on what you just said
24 because I don't think it answers the question about the
25 tension.

1 Reverse engineering is just reverse
2 engineering. There is patents out there, and it protects
3 certain things, and they don't -- you have got reverse
4 engineering.

5 I think the better analogue would have been to
6 have asked what if three or four horizontal competitors
7 possessing about 25 percent of the market get together
8 who do not have patent protection for a particular area
9 of innovative activity, but what they have is the black
10 magic of how to do the thing right. They understand what
11 the process is.

12 Take resin production, for example. Most of
13 it's art. A little of it is science.

14 If you take the people involved and move them
15 from one firm to another, you transfer that technology
16 all right, but the question what happens if you get there
17 as a group, four or five firms together, and decide to
18 restrain others that might get that technology or might
19 get that type of process or that information.

20 You say look, if you come into the group, you
21 can't give it away. You can't sell it. We're going to
22 benefit collectively from that.

23 Well, you've stopped reverse engineering of a
24 type. You have stopped imitation of a type for sure, but
25 you have probably also advanced innovation and advanced

1 commercialization, and it seems to me a lot would revolve
2 around market power questions and are not answered by
3 whether or not there was intellectual property protection
4 by patent versus by contract.

5 PROFESSOR ORDOVER: It seems clear to me,
6 though, that if you tied it up, intellectual property
7 protection as has happened over the years, and it may be
8 expanding into the copyright area software, which is
9 especially very sensitive, at least my understanding, the
10 usual arguments for joint ventures as being necessary to
11 recapture the spillovers to undertake these risk-sharing
12 agreements, sponsor and others, I think it's somewhat
13 diminished.

14 I think that you cannot have a dynamic which is
15 totally unbalanced, and that is you cannot have a
16 circumstance in which both the patent and the copyright
17 law are conferring stronger and stronger exclusionary
18 power against those who are by law excluded, so that
19 copying a single line of code, for example, may be viewed
20 as a major infringement, and at the same time, the
21 antitrust regime is liberal enough which says well, you
22 know, spillovers are out there and you're going to be
23 recapturing them one way or the other so you better --
24 you have to be allowed to joint venture or to do all
25 kinds of things by contract and so on, so forth.

1 I think there has to be a balance of some sort.
2 I think there has to be sufficient amount of openness in
3 the economy for people to be able to engage in
4 constructive competition, and if you are not, there is no
5 room for doing that, then the next phase of competition
6 will come to a grinding halt, and that's what I was
7 saying initially, that the balancing ought to be looking
8 forward.

9 Obviously that's a very hard balancing to
10 undertake, but it's my view that the more you're allowed
11 to exclude through the IP law, the less you need, the
12 less argument there is for the usual arguments for joint
13 ventures.

14 If you look at the NCRA data base, there's very
15 little of it, for example, in chemical industries or
16 medical instruments industries.

17 Why? Because these industries -- sorry --
18 these people have very potent patent protection. They
19 really don't need to mess around with too much of these
20 kinds of arrangements.

21 There is very little fear that anybody is going
22 to encroach and succeed.

23 Most people encroach and fail, and therefore,
24 you see the data confirming what we are saying here,
25 which is when exclusionary problems may be real, maybe

1 we're talking about development of generic technology,
2 you will observe not only two player joint ventures but
3 five or ten or fifteen player joint ventures.

4 COMMISSIONER STAREK: Did you want to pose your
5 hypothetical now?

6 MR. MILLER: Okay. Well, let's take, let's
7 take Windows, which up to now Microsoft has said what
8 they would claim is an open interface. They give out the
9 application program with interfaces, and they say lots of
10 people, thousands of programs have been built on it,
11 which are complementary to, complementary to the
12 operating system, but in the meantime, Microsoft now has
13 gone into not only the operating system business, but
14 also the application business.

15 In fact, it gets more revenue today from
16 applications than it does from operating systems, so it
17 might say well, we have an intellectual property right to
18 the software. We own the interface. We don't have to
19 give it to anyone. We're not obligated to license it.

20 Let's suppose that next week Microsoft changes
21 its business model and says we're, we're not going to
22 license the interface to anybody who is in competition
23 with any program that we make.

24 We're not going to give it to any word
25 processing company or data base company or anybody that

1 makes presentation graphics or anything else that we
2 make.

3 We're just going to do it ourselves, and we
4 have an absolute right under the intellectual property
5 laws to do that.

6 Does that create anticompetitive problems?

7 PROFESSOR ORDOVER: Roger will talk about that.
8 I -- actually, the hypothetical to me -- I decline the
9 offer.

10 I think that it's a very tough hypothetical,
11 but you would want to consider how long Microsoft would
12 survive as a standard for the operating system if it
13 conducted its business in such a way, so there are forces
14 -- I think people have very differing opinions on indeed
15 what should be done in a circumstance like that.

16 I think that some years ago, 15 years ago I
17 wrote a paper which was uniformly derided for suggesting
18 that there may be something untoward about changing
19 interface specifications.

20 It was actually partly sponsored by the FTC,
21 the paper was -- not the conclusions, but the, the point
22 being I think that first of all, it seems to be true that
23 arbitrary changes in the licensing of such things as
24 software would provoke much more outcry than if, than if
25 Microsoft followed the Apple route and said I'm going to

1 write everything myself. I won't license it to anybody.

2 You can see where the success of Apple versus
3 Microsoft has been partly for that very reason perhaps,
4 so changing your business plan would expose Microsoft to
5 substantial risks, and potentially appropriate
6 substantial risks partly because to the extent that one
7 believes in this theory of installed base opportunism,
8 there would be a significant base of MS DOS or WINDOWS 95
9 owners who actually purchased the systems on the
10 presumption that it's going to be reasonably open so that
11 other people can write applications for it, and until
12 Netscape or somebody else or OS 2 would supersede the
13 dominant system, there will be room for a fair amount of
14 exploitation, and that creates a danger especially if in
15 your hypothetical you would not posit any particular
16 reason for a change of business strategy.

17 There may be a circumstance in which there may
18 be a reason, and others there may not be, but the way you
19 structure it, I think that that would be a dangerous
20 proposition for Microsoft, one leading to extinction, but
21 not immediately obviously.

22 COMMISSIONER STAREK: Interesting hypothetical.
23 John, did you have a question? Or sorry -- Professor
24 Noll?

25 MR. BAKER: Let Roger take it.

1 COMMISSIONER STAREK: Please.

2 PROFESSOR NOLL: It seems to me you asked a
3 very specific question which has gone so far off track
4 I'm not sure I should still try to answer it.

5 MS. DE SANTI: I'm still interested.

6 PROFESSOR NOLL: I will resist the temptation
7 to respond to Janusz and go to the question about can
8 joint ventures solve the appropriability problem?

9 And you know, whereas I will say that we have
10 to admit the intellectual possibility that they can in
11 certain circumstances, I will simply make a broad claim
12 in the vast majority of cases, that is complete and utter
13 window dressing and has nothing to do with reality.

14 And the reason for it essentially is the
15 following, that if you ask the question under what
16 circumstances can a non-appropriable innovation become
17 appropriable, only by virtue of a joint venture, it has
18 to be by reduction of competition among the people in the
19 industry, which means they have to somehow not compete in
20 the application of that innovation, and they have to be
21 able to protect against entry, and that the, the reason
22 things become non-appropriable is because in fact of
23 copying and innovation, copying and innovation by others,
24 and product market competition, and the solution to that
25 again is a royalty system whereas the royalty rate is

1 unrelated to the, the quality of innovation. It simply
2 becomes a cartel facilitation device.

3 The second reason for it is I know of no way to
4 write down a rule that would be something like a merger
5 guideline which would say R&D joint venture, you are
6 required to specialize only in non-appropriable
7 innovation. All right.

8 That is to say, what -- the natural inclination
9 of any R&D joint venture is going to be to maximize
10 profits of the joint venturers, and the way you maximize
11 profits of the joint venturers is to focus on
12 appropriable innovation.

13 The third point I would make about it is that
14 you cannot discuss this outside the context of all
15 federal policies towards R&D, and the traditional way we
16 have thought about how to deal with non-appropriable
17 innovation is produce it in the public sector and make it
18 publicly available, or at least subsidize a joint venture
19 and make it publicly available, and that's exactly the,
20 the issue here.

21 It seems to me that if you genuinely identify
22 an area where there is enormous amounts of social value
23 to be obtained, the alternative is to pay for it and make
24 it publicly available and to allow free participation by
25 the industry, but not exclusive orientation towards it.

1 And you know, the argument here is so similar
2 to the argument, the battle we fought for 25 years about
3 process utilization and economic regulation, which is the
4 argument that, you know, it's really important that
5 people who live in rural areas be able to pay the same
6 price for utilities as people who live in urban areas
7 despite the fact that it's ten times as expensive to
8 serve them, and rather than pay the money for it,
9 Congress is somehow unwilling to see the intelligence of
10 this brilliant policy, so therefore let's prohibit
11 competition in the industry in order to engage in
12 internal cross-subsidization with all of the horrendous
13 inefficiencies that arise from that both in terms of
14 production efficiencies of the regulated firm and in
15 terms of the dead weight losses created by the
16 cross-subsidization.

17 I think that trying to do non-appropriable
18 innovation through R&D joint ventures is exactly the kind
19 of avoidance of the true public good feature of those
20 things that ought to be publicly subsidized

21 MS. DE SANTI: Bob, do you want to talk about
22 this question?

23 MR. SKITOL: Well, I guess, I guess this is
24 responsive.

25 The interplay between intellectual property

1 right to exclude versus competition concerns under the
2 antitrust laws is yet to be played out.

3 I don't think we're even close to working out
4 the, the right balance between those two regimes, and
5 it's right smack in the middle of the Kodak case.

6 Kodak today filed their JNOV, and their big
7 argument against the verdict is that these replacement
8 parts were patented, and Kodak has the right to refuse to
9 sell patented parts to competing independent service
10 organizations.

11 That's going to go all the way to the Supreme
12 Court I guess, and in standard setting, there is a
13 tremendous tension yet to be resolved about just, you
14 know, when and under what circumstances do you make
15 somebody, do you have a rule of law that says that even
16 though that's your patent or copyright, even though
17 that's technology you developed, that's your innovation,
18 and it's protected by the patent code or the copyright
19 code, nonetheless because of the way you wish to have
20 that technology used, the antitrust laws require you to
21 license it out.

22 We haven't yet figured out how to and under
23 what circumstances the antitrust laws should say
24 something like that to intellectual property.

25 PROFESSOR NOLL: Bob, let me disagree with you.

1 Suppose the rule was that, that Bell Communications
2 Research or AT&T Bell Labs has a patent on all the
3 necessary things to use a telephone, which isn't true now
4 but would have been true 20 years ago.

5 Do they have the right to say that we'll not
6 sell our telephone to anybody who doesn't let us own
7 their house?

8 In other words, I think we have fairly clear
9 guidelines that the, that at least point out the domains
10 of which it would be ludicrous to allow patent extension
11 into other markets, and the real question has to do with
12 close calls obviously, but I think we know what the
13 principles are, and the principles are that there are
14 reasons why, in closely related markets, a firm might
15 very well want to leverage an intellectual property right
16 into the other market even if it were an inefficient
17 provider in that other market for a whole host of
18 reasons, the most obvious of which is to engage in better
19 price discrimination.

20 To take the case of Windows versus
21 applications, if you're just selling Windows, you don't
22 know whether you're selling it to someone who is going to
23 use it primarily for word processing, primarily for using
24 financial management programs, primarily for using its
25 statistical packages, primarily for using it for any host

1 of other applications, and you can engage in far better
2 price discrimination against the users of Windows 95 if
3 you discriminate among them in terms of the applications
4 they are going to use, and so it makes great sense if
5 you're Microsoft to try to foreclose entry into
6 applications programs for engaging in that kind of price
7 discrimination, so once again, it's sort of a fact-based
8 question.

9 Is the plausibility of the economies of scope
10 and greater integration greater or less than the
11 plausibility of the terms of this as pure market
12 extension for a host of reasons we can list, and it seems
13 to me that in the great majority of these cases, the
14 market extension argument is, the notion that there is an
15 efficiency to be captured there is extraordinarily weak,
16 but in any case, you can probably figure it out if you
17 just investigate it.

18 MS. VALENTINE: If we could bring this back
19 maybe to where we started, does this suggest that for
20 those of you who suggested that regardless of the form of
21 collaboration, the standard should be the same, and I
22 think that's both Jorde and Skitol, that you're looking
23 more at a rule of reasonsafe harbor and a similar, or an
24 extension of the guidelines, the current guidelines
25 framework to joint ventures, and you're not going to next

1 tell us, which I actually thought you were doing, Tom,
2 well, in fact innovation efficiencies are so special that
3 we should go to yet a different way of measuring those
4 efficiencies, and instead of having these least
5 restrictive alternatives, look at whether it would have
6 been substantially fewer participants Is this an effort
7 now to ratchet down guidelines or --

8 PROFESSOR JORDE: No. I think it stays the
9 same, and I really think you ought to be applying
10 remarkably similar standards in order not to cause
11 businesses to choose forms of organization that don't
12 match what they are trying to accomplish just to get a
13 different substantive result.

14 I would apply the safe harbor in collaborative
15 contracting and alliance areas equal to what is being
16 done for mergers so that we don't have an odd pressure in
17 one direction or another.

18 With respect to sort of my version of drastic
19 means analysis, that's how I think it ought to be done --
20 period.

21 I think there is loose language in a number of
22 judicial decisions suggesting probably a stronger
23 standard than is actually applied by any of the agencies
24 anyway, and I suspect that what I stated in my remarks
25 and have written in more detail is much closer to what

1 agencies in fact do when they are thinking about looking
2 at alternatives, so I don't think there's a change there.

3 There is a change with respect to innovation
4 and technology-related questions.

5 If by that you mean are there special
6 considerations that come into play because the nature of
7 what's being looked at involves innovation and technology
8 and rapidly changing industrial settings, then I think
9 the answer is yeah, there is a separate set of concerns
10 that you would at least want to pay attention to that
11 wouldn't come up or be as familiar to us if we were
12 looking at a transaction involving a mature industry with
13 several players that had been around facing each other
14 over a long period of time, without much change.

15 MS. VALENTINE: That would be factored into the
16 analysis?

17 PROFESSOR JORDE: Oh, yeah. Sure.

18 MS. VALENTINE: Bob, where are you?

19 MR. SKITOL: I think Tom and I are of a similar
20 view.

21 I agree with everything Tom just said. At
22 least I think I do.

23 MS. VALENTINE: Including his version of less
24 restrictive alternative?

25 MR. SKITOL: Well, I think he's suggesting that

1 it would be for, for somebody to, for a prosecutor or a
2 plaintiff to overcome a defender's efficiency showing on
3 least restrictive grounds, it would be a high standard.

4 You would have to show that there was an
5 obviously less restrictive way to do it, and one that
6 was, would have been substantially less restrictive if
7 that's -- I think that's what I heard Tom say, and that
8 sounds pretty sensible to me.

9 MR. TOM: I was struck by the fact the very
10 next point that Tom Jorde made after the least
11 restrictive alternative standard was that a lot of these
12 problems could be ameliorated, if not solved, by the
13 elimination of treble damages, the application of NCRA or
14 the like, and that led me to wonder whether the same kind
15 of latitude in the least restrictive alternative test
16 ought to be given in cases where you are not dealing with
17 retrospective remedies, but you're only dealing with
18 prospective changes in the competitive landscape which of
19 course would be the case under Section 5 of the FTC Act
20 as opposed to the Sherman Act itself.

21 PROFESSOR JORDE: That's an interesting point
22 with respect to the Section 5.

23 I didn't mean -- if I did, I erred -- I didn't
24 mean to suggest that the rule of reason standards that I
25 was advocating here ought to change or something

1 different ought to happen if the National Cooperative
2 Research Act or Production Act came into play.

3 At the end, I thought that, you know, there
4 ought to be more attention paid to that, but I don't
5 think the rule of reason changes there, either.

6 All that Act does is say the rule of reason
7 applies, and everything that we have been talking about I
8 think would fold into that.

9 I understand the point about looking at things,
10 at the time that the FTC might be looking at them that
11 you really don't have this hindsight kind of less drastic
12 means problem coming up unless one were looking at an
13 agreement that was already in effect and you were coming
14 in to see whether it ought to be taken apart or altered
15 or something of that sort. Then I think you would run
16 into that.

17 MR. BAKER: Sorry if I croak through the
18 microphone.

19 One of the -- this whole session has got me so
20 concerned about appropriability -- by the way, I was
21 talking about this during the break, that from now on,
22 I'm keeping all of my academic research captive -- I have
23 a question for Bob about your proposed research program
24 for my economic staff.

25 I'm actually delighted -- usually when people

1 are proposing that we undertake an ambitious research
2 program in the Bureau of Economics, it's people who want
3 to keep us out of the case work, find something else to
4 do. It's like when you ask the fellow who stops you for
5 speeding don't you have a robber you can go after?

6 You, of course, have a better reason, which is
7 that -- and I agree that research would be very helpful
8 for us to learn about how collaboration affects
9 innovation and competition just as you were proposing --
10 but what I'm wondering about is whether, and you can
11 probably speak to this from your knowledge of your
12 clients, whether the firms we would be asking these
13 questions to will cooperate with us and tell us what they
14 have been doing and all the details, and what they learn
15 and what they figure out and how it was commercialized
16 and who they talked to and what they charged for the
17 products and how related technologies were folded into
18 it, whether they would take the time to do that with us
19 on their own and whether outsiders would take the time to
20 talk to us or whether we should be using our subpoena
21 power to ask your clients these questions and whether
22 they would be comfortable with that and whether they
23 would raise, waive their -- whether all of these
24 attorneys would waive their confidentiality were we to
25 publish the results?

1 I mean-

2 MR. SKITOL: That's a very interesting
3 question.

4 On the one hand, I suspect that, that you would
5 find a lot of people with very strong opinions as to
6 whether the particular effort did or did not work and
7 what was right and what was wrong. You would find a
8 great range of opinions.

9 Would people be willing to talk to you? I
10 think the confidentiality thing would be an issue for
11 many, and you would have to, you would have to come to
12 grips with that, but I think as a matter of cooperation,
13 I think lots of people, I'm thinking about some
14 particular clients of mine, I think they would want to be
15 supportive of an in-depth Commission look at this sort of
16 thing.

17 I have my own sort of hypothesis as to one of
18 the things you would find out.

19 If you compared the relative success of loose
20 consortia versus arrangements that were more, that were
21 closer to the merger model, you would find those that are
22 closer to the merger model more likely to have been
23 successful and efficient, and that's because what I have
24 seen as a working lawyer and advisor to loose consortia
25 is an awful lot of industry politics that get in the way

1 of serious work.

2 When you try to do serious R&D, with loose
3 consortia, with a whole bunch of companies, each of which
4 has its own separate agenda and each of which doesn't
5 totally trust the other, the other members, you are
6 likely to end up with a lot of inefficiency and less
7 effectiveness than the other model which raises kind of
8 an interesting question when we talk about least
9 restrictive and so forth, there's a lot of traditional
10 thinking about joint venture law that's -- and merger law
11 -- that says that, you know, it's like what the
12 guidelines now say about efficiencies.

13 They say well, we'll consider efficiencies as a
14 defense to a merger, but only if there's no less
15 restrictive way to accomplish the efficiencies, and often
16 at least in the past, the enforcement thinking has been
17 in the direction of well, a joint venture is less
18 restrictive than a merger because it's less permanent,
19 and that's, I'm not sure that's, that's a valid bias, and
20 I think the kinds of studies of past collaborations that
21 we have been talking about might shed some interesting
22 light on that.

23 MR. BAKER: If you're right, it would seem that
24 safe harbor should be set higher for mergers than for
25 joint ventures?

1 PROFESSOR JORDE: I like that. Any sort of
2 efforts at studying this area run into some complications
3 that we really want to be careful about.

4 One is the different settings that you would
5 expect people to merge into versus loose consortia.

6 I would be real surprised if people were trying
7 to accomplish the same things as you went through and
8 looked at what was behind the particular joint activity,
9 so it might be, be comparing apples and oranges and
10 keeping the apples and apples straight.

11 The other thing that's difficult, though it's
12 really interesting to do from a study point of view, it
13 is very difficult to understand -- two things.

14 One is what would have happened but for what
15 you have seen over the last three or four years? I mean
16 it's sort of compared to what?

17 It's a very difficult thing to come to terms
18 with. So what if something fails?

19 Now I would assume we're going to understand
20 that a whole lot of these joint ventures and consortia
21 and mergers for that matter fail, and they don't achieve
22 what people tried to achieve, but that doesn't make them
23 anticompetitive or make there any greater reason for an
24 enforcement agency to have taken a second harder look at
25 the next group of those coming down the line, so it's a

1 difficult proposition for agency expenditures.

2 PROFESSOR NOLL: Knowing that it's OMB budget
3 review period, I hate to detract from the possibility of
4 your actually getting a budget increase to undertake a
5 study, but I actually have done the first half of this
6 proposed study in the sense that I have, I actually went
7 through the first four years' worth of registrations and
8 classified them as I see them.

9 Now admittedly about 5 percent of them are not
10 classifiable from just reading the title and the names of
11 the firms. All right.

12 But I wish I could remember off the top of my
13 head. I didn't think of it as being a major issue, but
14 something on the order of 88 percent of the registrations
15 are in three industries.

16 They are either telecommunications involving
17 Bell Corp or AT&T, or in the computer industry or in the
18 automobile industry involving the big three automobile
19 manufacturers on issues pertaining to either batteries or
20 emissions technology, so that now those three also happen
21 to be areas of enormous historical antitrust activity.
22 All right.

23 So that if you were going to evaluate the
24 effect of the Act, you could really very quickly conclude
25 that the effect is probably virtually nothing except in

1 those three industries and focus just there and see if,
2 if, you know, if those sets of projects -- it's also the
3 case when you read the actual project description, that
4 part of them which is public information -- you have
5 access to more information than I do, but just reading
6 what I did, they typically get defined in relatively
7 broad and opaque ways, and one of the things that is
8 public is the stated justification, and I found frankly
9 personally distressing that in almost half the cases, the
10 stated justification was elimination of duplicative
11 effort.

12 MR. BAKER: If we were to go forward with this,
13 perhaps we would want to collaborate with you so we can
14 appropriate.

15 PROFESSOR NOLL: Well, I would like to join
16 your cartel for doing the research, too, unless somebody
17 pays us!

18 PROFESSOR ORDOVER: I just want to not add,
19 actually extract something that Roger said a while ago.
20 It's a long day for me not to pick a fight with Roger. I
21 feel like I have not accomplished enough, but a couple of
22 things that I thought were interesting but misguided.

23 One is on the issue that just because there are
24 spillovers, that somehow there ought to be government
25 intervention.

1 I believe that there is no more harm to be
2 accomplished than to have the government somehow get
3 involved in underwriting the alleged spillover projects
4 because that would require humongous apparatus of
5 determining which amount of spillover qualifies and what
6 the actual degree of appropriability, how much money
7 would be required to cure the spillover, and on and on,
8 and I think that even thinking of such a proposal
9 suggests how inappropriate it is to solving what's truly
10 not often a huge market failure, but some market failure,
11 and I agree that when it comes to basic or fundamental
12 research, there is a fair amount of government support
13 already, and if you, as you have looked at NCRA filings,
14 there are a number of them although substantially smaller
15 than I thought, that involved actually universities and
16 nonprofit organizations and things of that sort.

17 Secondly, I disagree that spillovers cannot be,
18 that the internalization of spillovers is tantamount to
19 reduction of competition.

20 I think that's just not plain so because there
21 is plenty of work showing, theoretical and empirical
22 demonstrating the fact that such collaborations do indeed
23 enable firms to at least enhance the amount of research
24 partly because they fear less spillover, so the
25 equilibrium may be without internalization, almost very

1 little output or no output whereas with internalization,
2 some output, not as much as we would have if somehow
3 ideally philosopher Queen philosopher King could
4 determine how much should be done, but I do agree with
5 you, Roger, that if you're looking at the NCRA filings,
6 you'll find that these spillover justifications just
7 don't make it as a paramount explanation other than in
8 energy and in, and in environmental research.

9 I think most of those NCRA filings my guess
10 currently are designed to put together firms with
11 complementary assets, people that are good at doing one
12 thing with people who are doing something else, and enjoy
13 scope economies at the level of R&D, which doesn't have
14 anything to do with in fact spillover, capturing of
15 spillovers, but it has to do with putting together assets
16 that are held in separate hands but which could function
17 very well together, and I believe that's a tremendously
18 legitimate reason for joint venture as it is for any
19 other conglomeration of complementary assets which is why
20 we do take a somewhat more lenient view of vertical
21 mergers, which to a large extent are indeed such in fact
22 putting together of complementary assets as opposed to
23 putting together of competing assets.

24 MR. TOM: Listening to the economists today,
25 I'm struck by the degree to which efficiencies really

1 can't be identified, quantified in this area with a great
2 deal of specificity and, you know, there's a lot of
3 vagueness perhaps just inherent in the enterprise itself.

4 In light of that, I wonder a bit about the
5 practicality of Bob Skitol's suggestion that we write
6 guidelines about efficiencies.

7 I mean I don't know if it can be done in the
8 current state of knowledge.

9 I don't know if we would end up with a better
10 product than essentially the approach that we have now,
11 which I take it to be that mergers in general are
12 generally efficient, and we allow a lot of latitude
13 toward mergers, and we don't find them anticompetitive in
14 the first place very often, and in light of that, we
15 don't often need to balance a highly quantified
16 measurement of efficiencies against anticompetitive
17 finding when we do find those clear anticompetitive
18 situations.

19 Is there any reasonable prospect that we can do
20 better than that at this time with our current state of
21 knowledge?

22 MR. NOLL: I don't think that's the right
23 interpretation to put on what economists have said. All
24 right.

25 I think that the right interpretation to put on

1 it is that it's a case-by-case kind of system, that there
2 is a number of, there is a number of issues out there
3 about the likely effect of a merger or a joint venture on
4 R&D by the participants, and then there is a spillover
5 effect or a connectiveness of that to what is likely to
6 happen in the product market, and that goes beyond what
7 you would normally get just by looking at product market
8 shares.

9 I don't think you can conclude from that that
10 it's, that it's sort of non-quantifiable.

11 It seems to me that it's multi -- just take,
12 for example, the -- forget Janusz's desire to
13 differentiate his product and just take what he said in
14 response to what I said.

15 What we have, if we merge those two statements,
16 we have the following story, which is Janusz emphasized
17 the economies of scope rationale. All right. So you
18 hear it said. You take a merger. You have got all the
19 normal merger analysis.

20 In addition, each company reports to you, in
21 detail, what its research projects are, what it perceives
22 to be research strengths, and you simply match them up,
23 and the more they overlap, the less likely it is the
24 economies of scope is a justification that could cause
25 you to say well, maybe I will give them a few points on

1 the Herf in the product market because of the strong
2 possibility of complementary in research, but so
3 likewise, if you were to -- if it looks like they had
4 good Herf numbers but it turns out they were the two
5 leading research firms in the industry, and their
6 research projects were virtually identical, then you
7 would have much less of a reason.

8 Then you would say gee, maybe I should subtract
9 a few points on the Herf in order to let this thing go
10 through, so I don't think that it's not implementable.

11 I think that what -- that the story is research
12 and development is complicated. It has many motivations
13 and many attributes.

14 It's motivated in part for the purpose of this
15 positive incentive to gain appropriable returns.

16 It's also motivated by the negative incentive
17 to avoid being the one that goes bankrupt in the industry
18 because you didn't keep up, and those phenomena can be
19 conceptualized in a case-by-case basis.

20 I just think at this point it takes more
21 sophistication, there is complexities to analyzing the
22 R&D aspects of a merger and joint venture that are just
23 not the same as analyzing the product market aspect.

24 PROFESSOR JORDE: We're getting toward the 4:30
25 mark, Mr. Commissioner.

1 I want to just take 30 seconds to say how
2 wonderful the paper was that was written by Bill Cohen in
3 preparing background materials for not just today's
4 session, but for, as I understand --

5 PROFESSOR NOLL: You're just saying that
6 because he knows how to spell your name!

7 MR. JORDE: It was just a superb piece of work,
8 and I have now learned it was done under quite pressed
9 time periods, so it's nice to have that kind of help
10 available.

11 MR. SKITOL: Here here.

12 COMMISSIONER STAREK: I agree. It was
13 remarkable, and in fact we have got several other papers
14 prepared by Susan and Debra's staff, and I must say all
15 of them have been extraordinary, very helpful and quite
16 well done.

17 Okay. Thank you all. My sincere thanks to all
18 of the panelists today who took the time to prepare
19 extensive statements and stayed around for a very lively
20 and enjoyable debate. It has been very helpful to the
21 work that we have here, to the mission that we're
22 undertaking, and I appreciate it and appreciate all of
23 your time and effort. Thank you.

24 (Whereupon, at 4:33 p.m., the proceedings were
25 recessed, to reconvene at a future date.)

C E R T I F I C A T E

DOCKET/CASE NUMBER: P951201

CASE TITLE: HEARINGS ON GLOBAL AND INNOVATION-BASED
COMPETITION

HEARING DATE: October 26, 1995

I HEREBY CERTIFY that the transcript contained
herein is a full and accurate transcript of the notes taken
by me at the hearing on the above cause before the FEDERAL
TRADE COMMISSION to the best of my knowledge and belief.

DATED: October 26, 1995

SIGNATURE OF REPORTER

Catherine S. Boyd
(NAME OF REPORTER - TYPED)